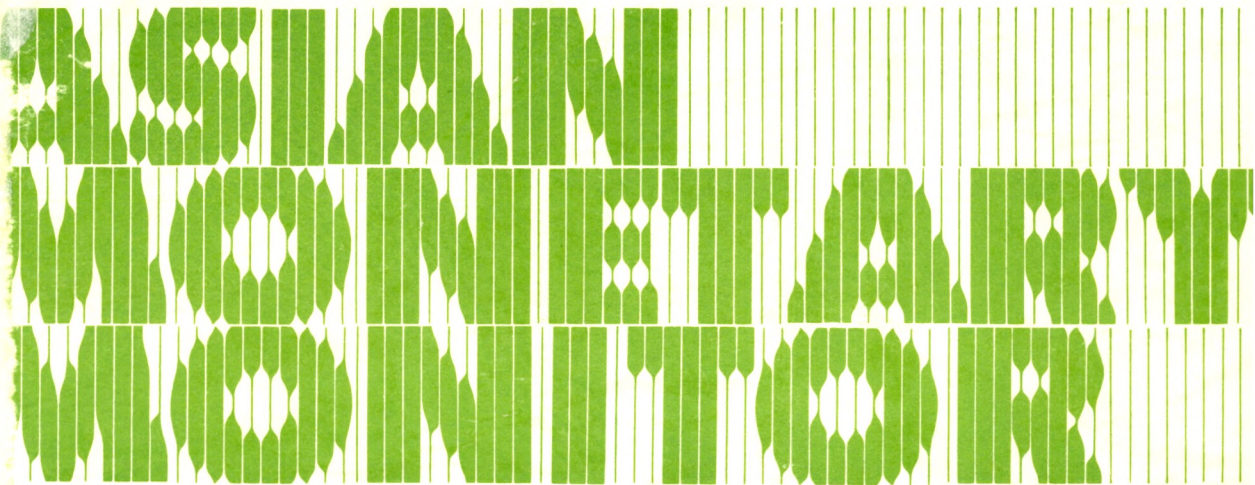




CONTENTS

	Page
AUSTRALIA	
The Monetary Slowdown Materialises by John Greenwood	1
HONG KONG	
The Dynamics of the Deposits and Loans Markets by Andrew Freris	11
TAIWAN	
The Potential for Higher Inflation by Tim Lee	23
ECONOMIC CAPSULES	
Japan: The Rise in Interest Rates	AFF 32
Thailand: Inflation to Rise Further	TJL 34
INDEX	
An Index of AMM Articles Published in Volume 13	36





John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Tim J. Lee
Editor
Senior Economist
G.T. Management (Asia) Ltd.



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 1296 Hong Kong.

ASIAN MONETARY MONITOR

January - February, 1990

Vol.14 No.1

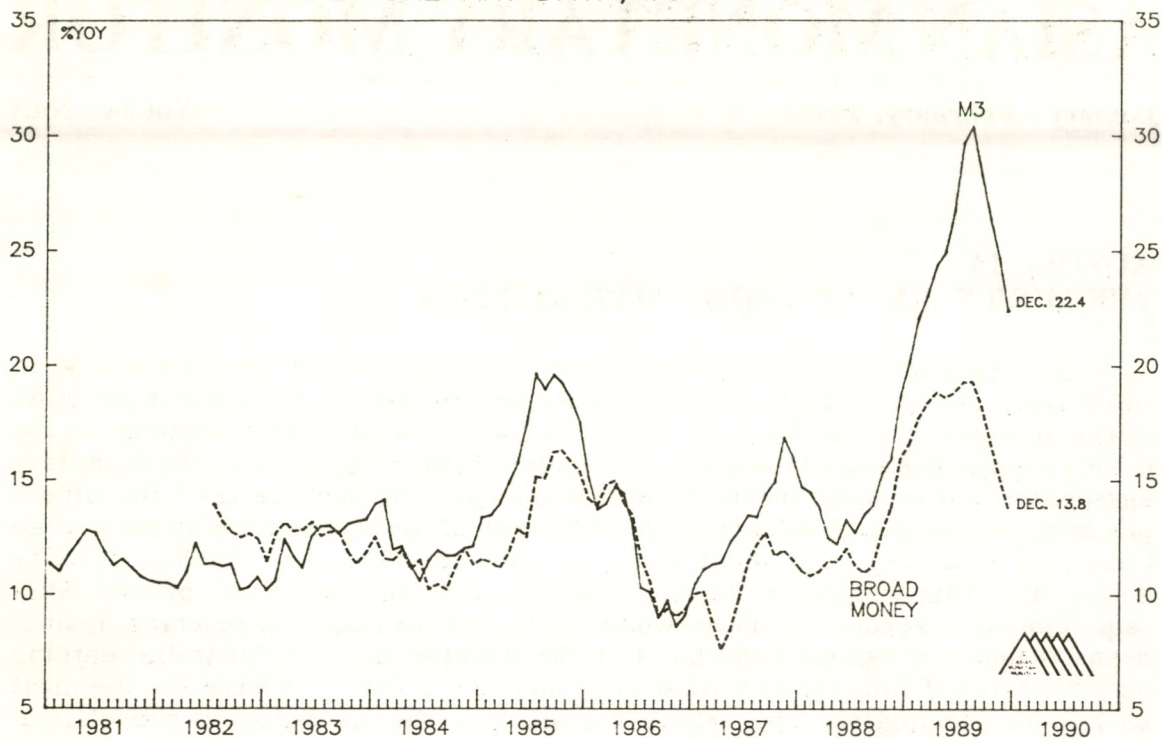
AUSTRALIA THE MONETARY SLOWDOWN MATERIALISES

Monetary growth in Australia is finally slowing down. A previous article in AMM (Vol. 13 No. 5, Sept-Oct 1989 "A Reconstruction of the Recent Relation Between Money and the Business Cycle") showed how official definitions of the money supply in Australia obscured the true relationship between the monetary aggregates and nominal measures of overall spending such as GNP in current prices by omitting bank bills from the definition of money. Bank bills became an important financing instrument used by banks to fund their lending activity during the 1980's because funding via deposits was penalised by the SRD requirement, a regulation under which banks had to maintain reserves against deposits (but not against bank bills) at the Reserve Bank of Australia, earning only 5% rates of interest at a time when money market rates were for the most part in double digits. The article showed how the distortion to the official statistics could be removed and a much clearer picture of Australia's recent business cycle history could be obtained by adding bank bills to the official definitions of money. The net result of these adjustments was to show that, when properly measured, monetary growth had accelerated sharply in 1987-88, and had slowed modestly between June or October 1988 and mid-1989. This was in contrast to the picture suggested by the official data (Chart 1) which implied no great upswing for Broad Money during 1987-88, but a steep upturn from September 1988 through mid-1989 i.e. exactly during the period of rising interest rates.

The recent data, i.e. both official and unofficial measures of money, show a distinct deceleration since September 1989. In Chart 1 official M3 has slowed from 30.4% in August to 22.4% in December, while Broad Money - an official measure which is wider than M3 - has slowed from 19.3% in July and August to 13.8% in December. Our preferred measures (which are adjusted to include bank bills) show Broad Money plus bank bills slowing from 16.3% in July to 10.8% in December, while Total Credit, a measure roughly corresponding to Broad Money plus bank bills in terms of its institutional coverage, slowed from 20.6% in July to 14.6% in December (See Chart 2). In short, during the final quarter of 1989 high interest rates at last proved effective in curbing the demand for bank borrowing and hence reducing the growth of bank deposits and money supply.

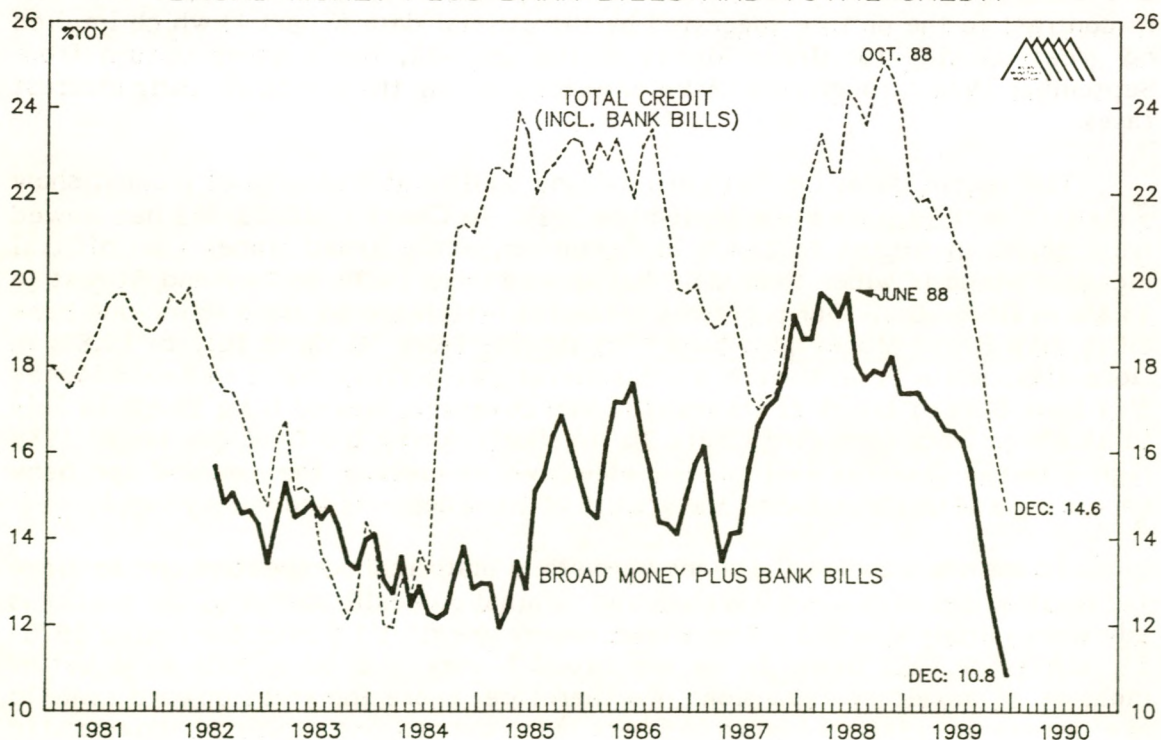
To see the slowdown of money growth in historical perspective and to judge the relation between money growth and nominal domestic spending, the reader is advised to study Chart 3. This shows money growth (M3) over the period 1970-81, but from 1982 onwards we use Broad Money plus bank bills as a better measure of monetary expansion. We therefore ignore the steep upward spike in M3 growth in 1988-89 (shown in Chart 1) for the reasons explained above and in

AUSTRALIA: CHART 1
OFFICIAL MONETARY DATA, M3 AND BROAD MONEY



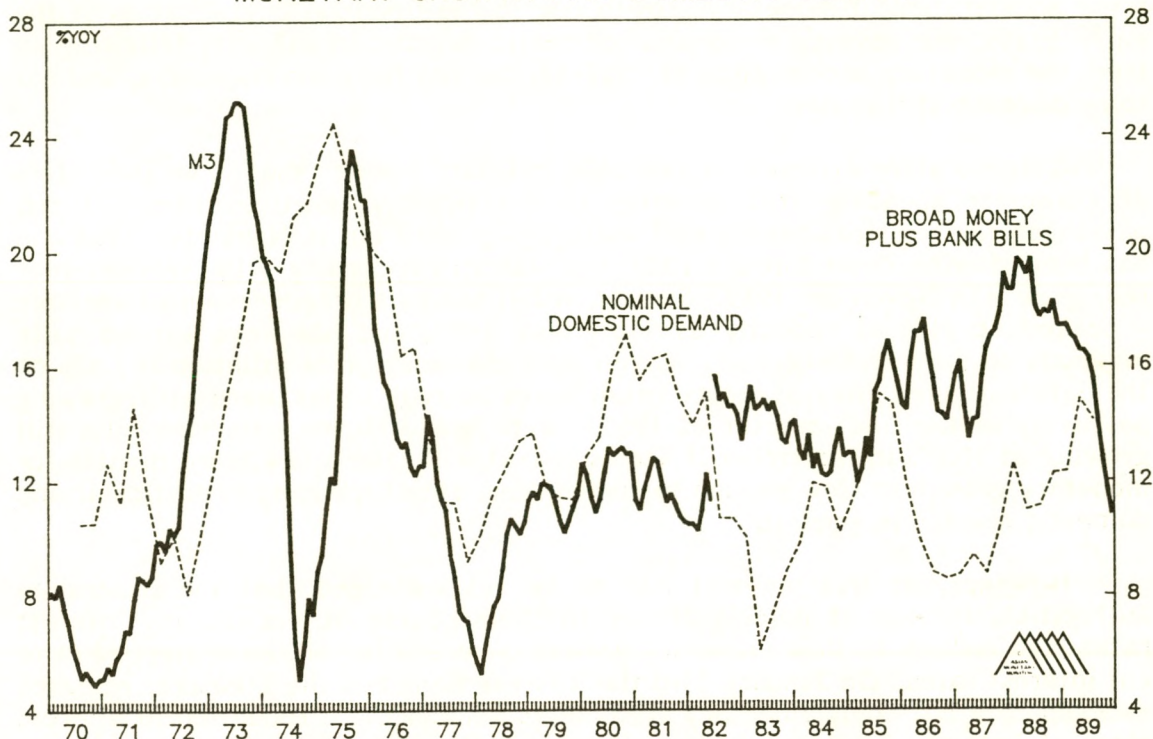
15/2/90

AUSTRALIA: CHART 2
ADJUSTED MONETARY DATA
BROAD MONEY PLUS BANK BILLS AND TOTAL CREDIT

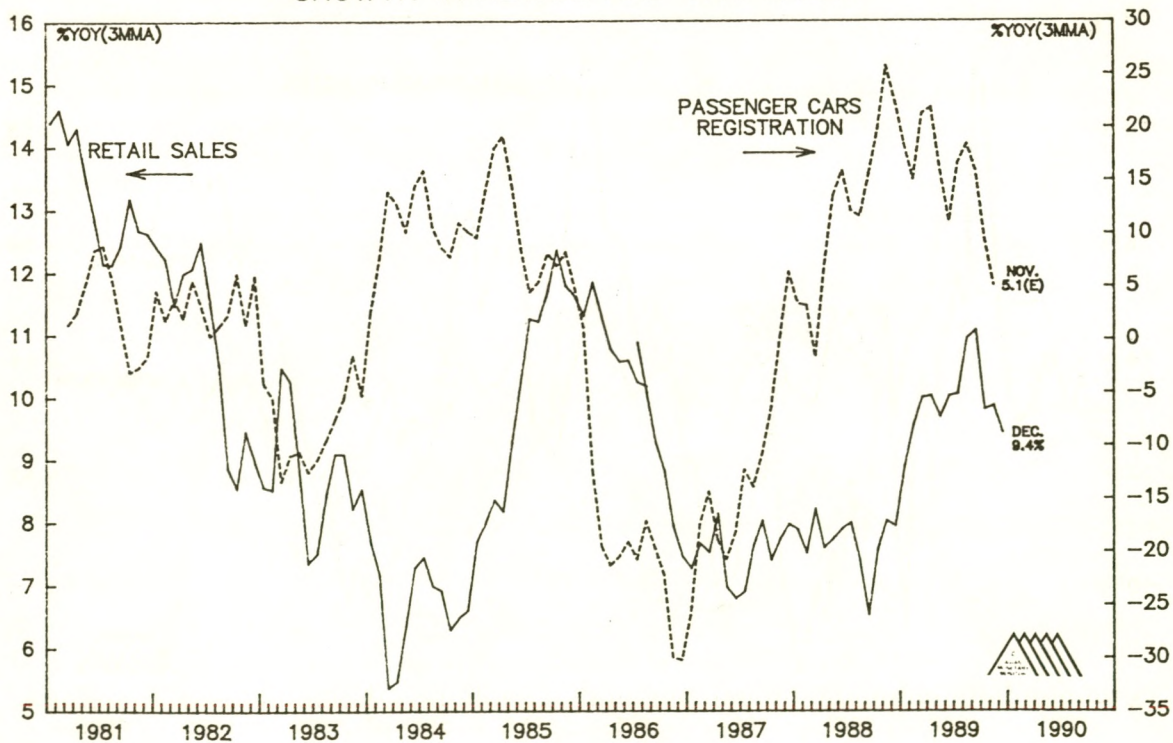


2/3/90

AUSTRALIA: CHART 3
MONETARY GROWTH AND DOMESTIC DEMAND



AUSTRALIA: CHART 4
GROWTH IN RETAIL AND CAR SALES

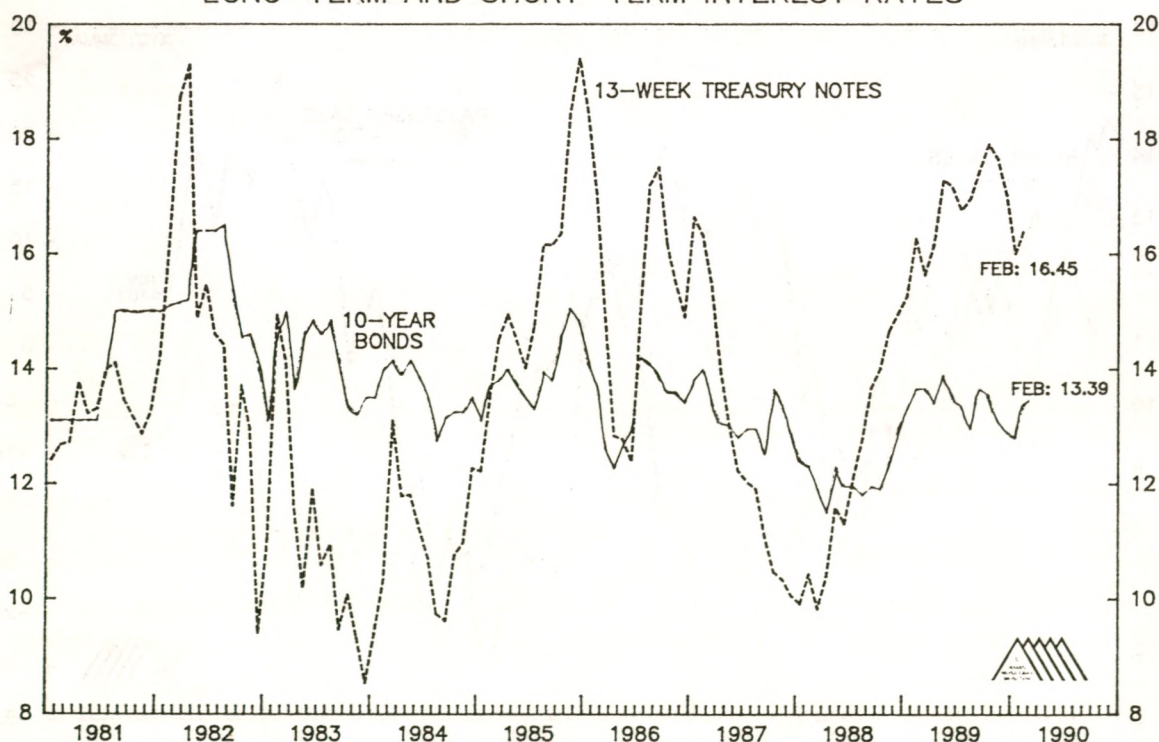


AMM Vol. 13 No. 5. The clear implication of Chart 3 is that, notwithstanding some acceleration of monetary growth due to the financial liberalisation of the early 1980s, the upswing in nominal domestic demand in 1988-89, following on from the monetary acceleration of 1987-88, has not fully run its course, and has some distance still to run.

Corroborative evidence is available in Chart 4 which shows two indicators of consumer spending still growing at significantly positive rates. First, passenger car registrations - a real variable - peaked out in November 1988 and has been slowing down through 1989, but was still recording 5.1% year-on-year real growth in November 1989. Second, retail sales - a broader nominal variable - peaked at 11% as recently as September 1989, and has since slowed quite modestly to 9.4% in December. Given that consumer price inflation is 7.8% on the latest figures, this suggests retail sales in real terms were still growing positively in the final quarter of 1989. With Broad Money plus bank bills still growing at 10.8% in December it seems that it will take a few more months for monetary growth to slow enough to further curb retail spending in particular and domestic demand in general.

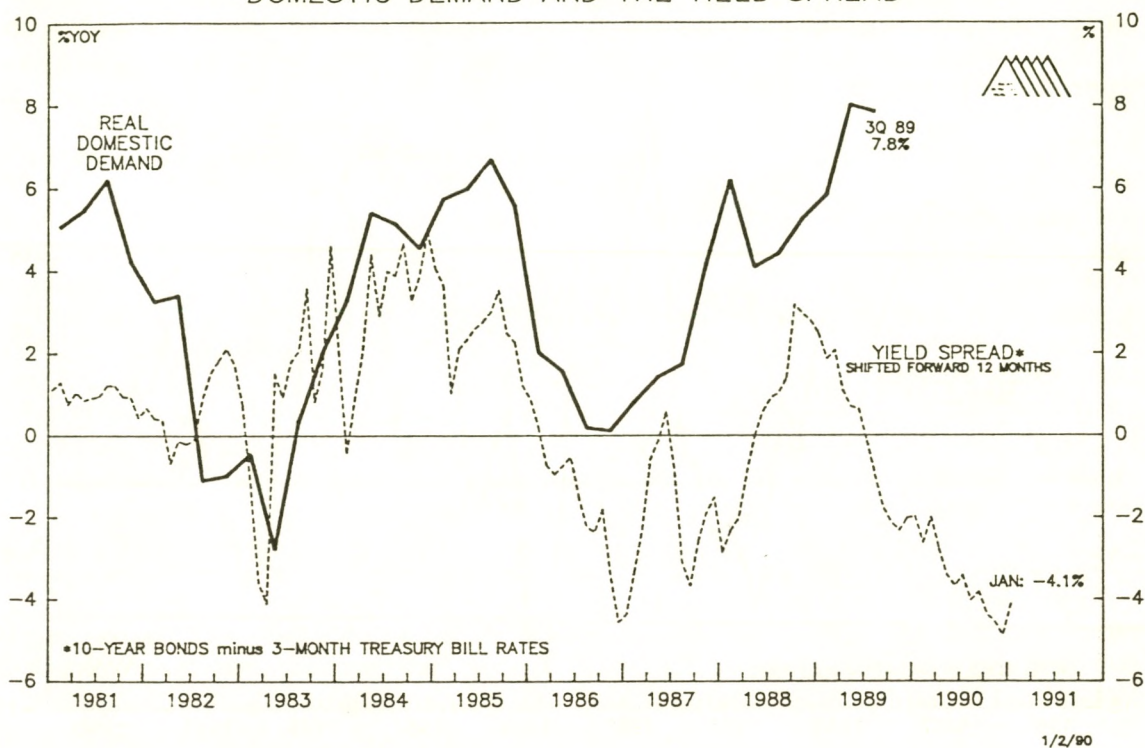
However, at this point it has to be acknowledged that the Australian authorities, instead of holding firmly to their course of maintaining interest rates high enough to slow monetary growth once and for all, have stepped in to cut interest rates. On January 23rd the Reserve Bank and the Treasurer released two separate but complementary statements announcing a reduction in interest rates of between 0.5% and 1.0%, reflected in Chart 5. The official statement from the Reserve Bank went as follows: "The Governor of the Reserve Bank, Mr.

AUSTRALIA: CHART 5
LONG-TERM AND SHORT-TERM INTEREST RATES

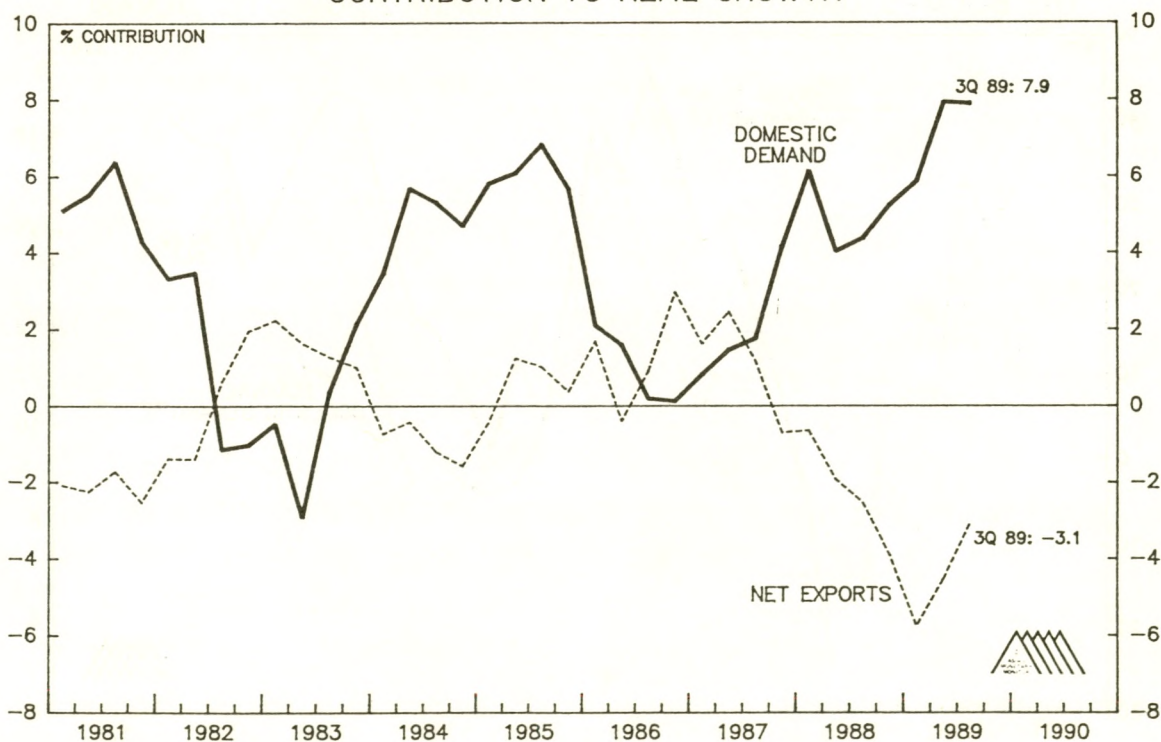


5/3/90

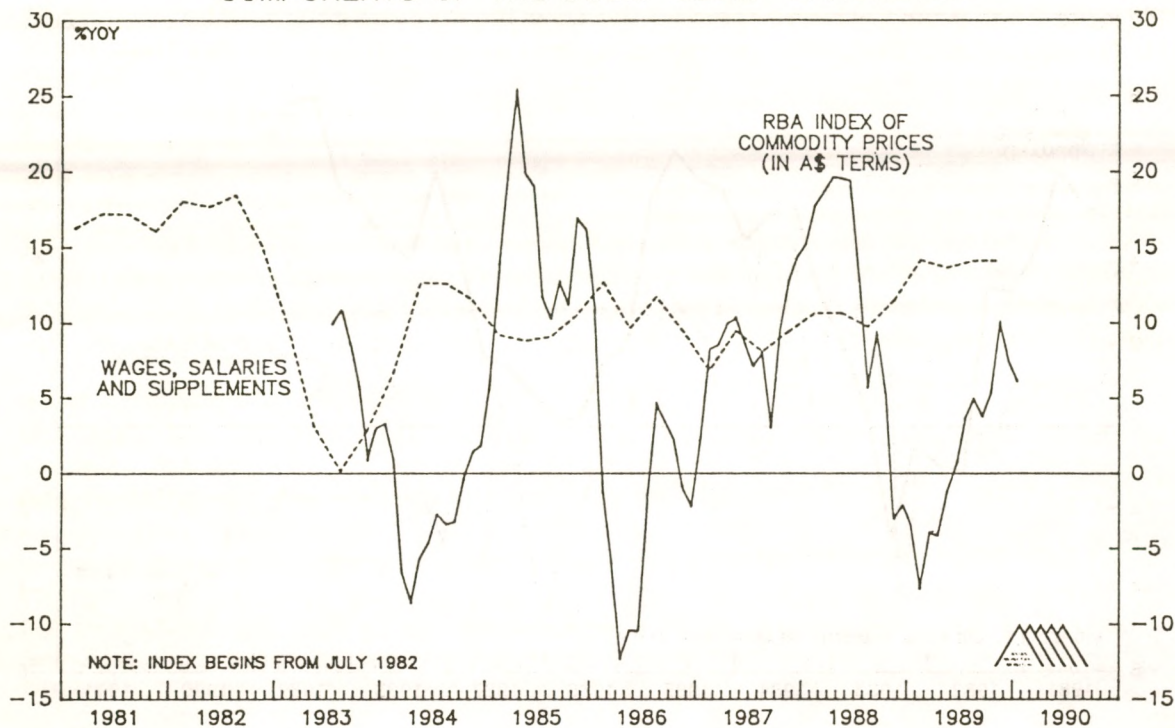
AUSTRALIA: CHART 6
DOMESTIC DEMAND AND THE YIELD SPREAD



AUSTRALIA: CHART 7
CONTRIBUTION TO REAL GROWTH

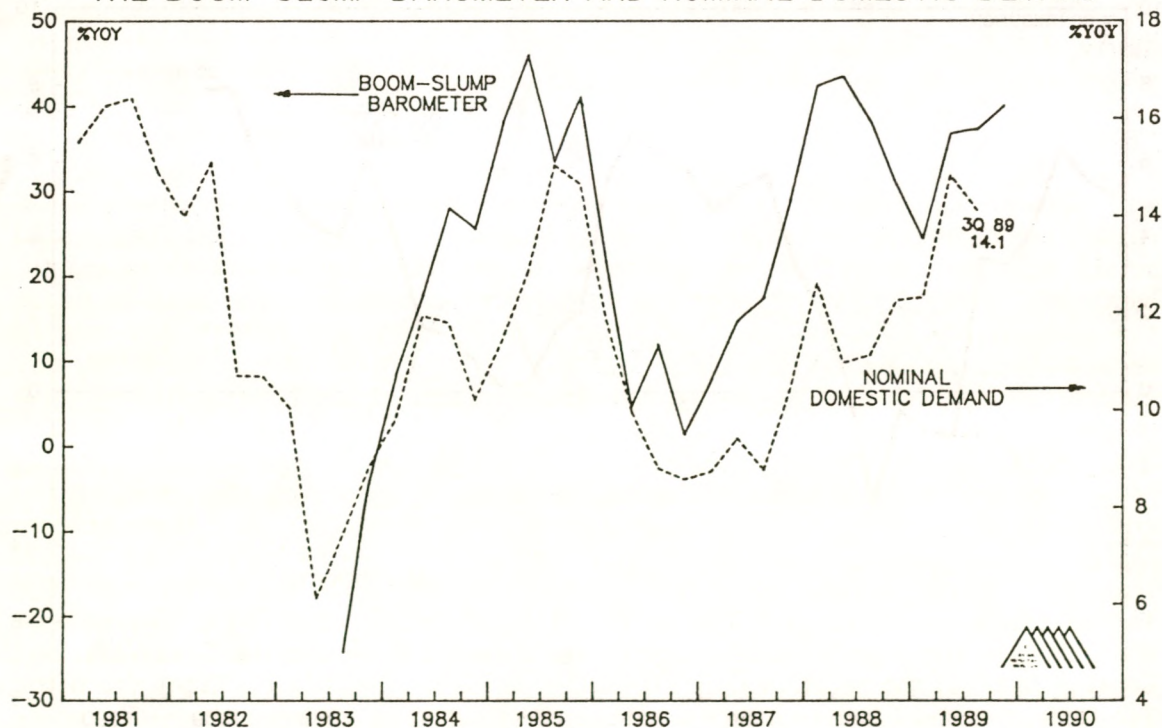


AUSTRALIA: CHART 8
COMPONENTS OF THE BOOM-SLUMP BAROMETER



1/3/90

AUSTRALIA: CHART 9
THE BOOM-SLUMP BAROMETER AND NOMINAL DOMESTIC DEMAND



BOOM-SLUMP BAROMETER = (COMMODITY PRICES X WAGES, SALARIES AND SUPPLEMENTS) / UNEMPLOYMENT RATE

1/3/90

Bernie Fraser, confirmed that the bank had operated in the domestic money market this morning to bring about a modest reduction in interest rates. The Reserve Bank Board, which reviewed the case for an easing in monetary policy at its November and December meetings, agreed at a meeting yesterday that it was appropriate to be making some adjustment now."

"Although there can be no precision in such matters, the bank will be seeking in its market operations to reduce unofficial cash rates by between one half and one percentage point from their average levels of recent months. A modest reduction of this order is judged to be appropriate, having regard to the slowing in the economy which has occurred and is in prospect, and the continuing role which monetary policy must play in moderating demand and containing inflationary pressures."

"Decisions in respect of any further easing in monetary policy will be made in the light of developments in the economy, especially demand and wage and price levels. The bank will continue to pursue a monetary policy which supports other policies directed at achieving, over time, improvements in inflation and the current account."

The parallel statement from the Treasurer, Paul Keating, was equally ponderous : "Over recent months, I have said repeatedly that policies would not be eased until there were unambiguous signs that domestic demand growth was slowing to a more sustainable rate. That is now occurring."

"However, it is important to understand that this adjustment is a limited initial step. The Government will not risk a re-emergence of demand or cost pressures by an excessive easing of policy."

"Looking ahead, the outlook for interest rates will depend on developments in Australia's external position, and continued success in the containment of wage and price pressures. Effective arrangements to secure ongoing wage restraint will be important to the prospects for further sustainable interest rate falls."

Superficially these statements seem eminently reasonable. However, if the Australian authorities were really serious about curtailing inflation they would surely not ease up on monetary policy at the very first signs of economic weakness. Since it always takes much longer to reduce inflation than to cause the economy to slow down, and moreover since monetary growth has only in recent months slowed to rates comparable with the growth of nominal GDP, this kind of instant reaction is hardly consistent with bringing down inflation on a longer term basis.

Subsequently interest rates were cut again on February 15th, and at the end of the same week the government announced a general election to be held on March 24th. Since December the 90-day bank bill rate ratcheted down by 2-2.5% from 18% to 15.5%-16%, while the 13-week Treasury Note has fallen from 17% to the 15.5%-16.0% range. The sceptical observer would be wise to conclude that, despite the high-brow language of the Reserve Bank and the Treasurer, and bearing in mind the relative lack of independence of the Reserve Bank from the Treasury, the reduction in interest rates is motivated to a considerable degree by

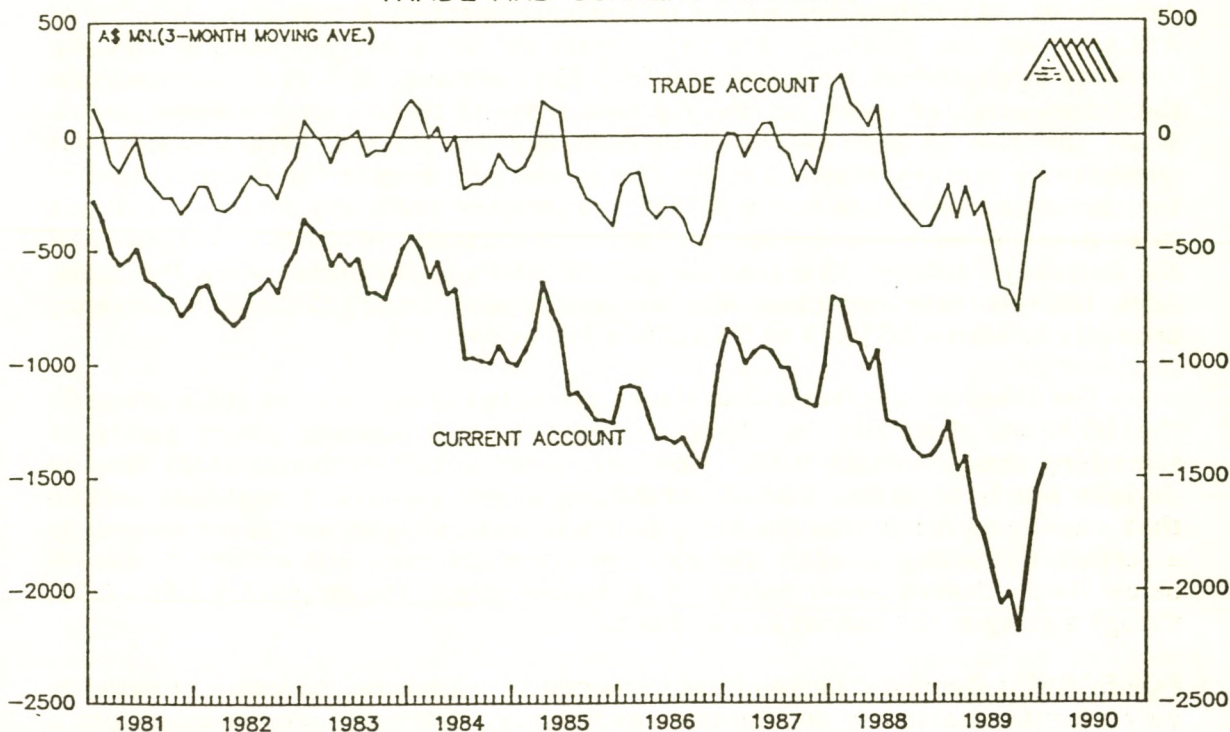
purely electoral considerations. If that is so, then it will almost certainly be necessary to raise interest rates again in order to tighten monetary policy immediately after the election. At this point only time will tell.

Numerous other indicators suggest that monetary policy needs to remain tight for several months more. Domestic demand in real terms recorded a growth of 7.8% year-on-year for the third quarter of 1989, or 14% in nominal terms. As can be seen from Chart 6, real domestic demand has been reasonably well predicted by taking the yield spread (10 year Commonwealth government bond yields minus 3-month Treasury Bill rates) and shifting it forward by one year. After the yield curve has become inverted, or monetary policy has been tight, real domestic demand tends to slow down with a lag of about one year. Conversely, after the yield curve has been positive, or monetary policy has been easy, real domestic demand tends to accelerate - again with a lag of about one year. This relationship has worked well over the period since the liberalisation of Australia's financial markets in 1982-83. The relationship has also been especially useful in view of the unreliability of the official monetary data as a guide to the true stance of policy. However, while the relation appears to be a good one in broad terms, the precise timing of the prospective downturn in domestic demand is not easy to gauge from the chart.

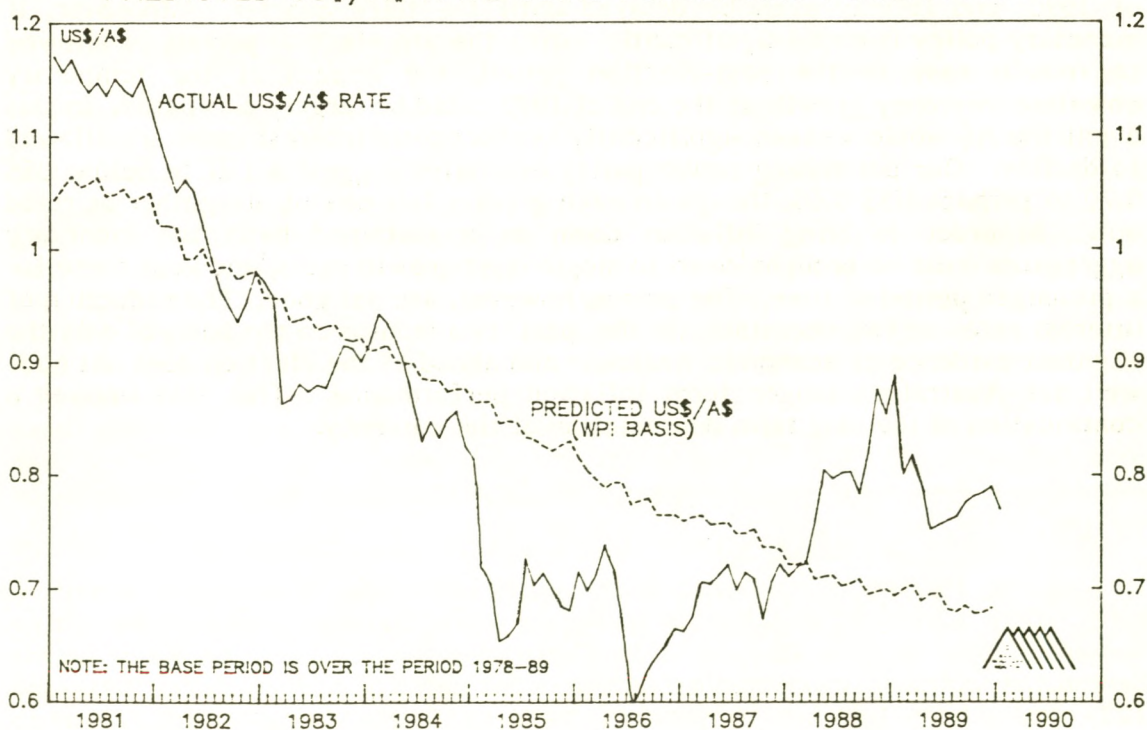
A better proxy for domestic demand (this time in nominal terms) can be obtained by combining various indicators of the strength of the domestic economy into an index we have called the Boom-Slump Barometer. In Chart 8 we show the behaviour of the Reserve Bank of Australia's (RBA) commodity price index in A\$ terms and the behaviour of the index of wages, salaries and supplements. Since 78.6% of Australia's export earnings in the financial year 1988-89 derived from primary and processed commodities (mainly food, industrial and mineral products, and petroleum), and since net exports (i.e. exports of goods and services less imports of goods and services) have contributed strongly to overall GNP - e.g. in 1982-83 and 1986-87 as shown in Chart 7 - the inclusion of this index is intended to capture the impact on Australia of strong overseas demand. The index of wages, salaries and supplements captures the overall effect of government wage-setting policies, wage drift and other earnings related factors affecting the spending power of the labour force as a whole. Multiplying these two and dividing by the unemployment rate (as a proxy for the level of capacity utilisation) creates a sensitive Boom-Slump Barometer (Chart 9) for nominal domestic demand. The clear message of this chart is that since commodity prices are still reasonably firm, overall earnings growth is still strong at 14% p.a., and unemployment is still relatively low at 6.0%, the immediate factors supporting domestic demand are not yet weakening sufficiently to show the kind of steep decline implied by Chart 6 for real domestic demand. A steep downturn could yet occur, but these data suggest that it will not be until the second calendar quarter of 1990. And even then a continuation of the recent easing of monetary policy might postpone the day of the downturn.

Given the vagaries of monetary policy on either side of the election, forecasting currency movements is even more hazardous than forecasting domestic demand. The strength of domestic demand has been the major factor behind the widening trade and current account deficits during most of 1988 and 1989 (see Chart 10), but in view of the persistently strong capital inflows to

AUSTRALIA: CHART 10
TRADE AND CURRENT ACCOUNT



AUSTRALIA: CHART 11
PREDICTED US\$/A\$ RATE USING PURCHASING POWER PARITY



Australia, the current account alone has not always been a good predictor of the currency. For example, in 1988 the current account weakened sharply from deficits of A\$1 billion per month in the early part of the year to deficits of A\$1.4 billion per month in the latter part of the year, but despite this the currency strengthened from around US\$ 0.70 to around US\$ 0.90 at year end, and the trade-weighted index for the A\$ rose from 52 to 65 over the same period. Since the rise in interest rates in Australia from April 1988 onwards was undoubtedly the key reason for the rise in the A\$, despite the deterioration of the current account between mid-1988 and October 1989, any decline in interest rates over the next few months would almost certainly result in a weakening of the currency. Indeed, as a possible portent of things to come, when the 0.5%-1.0% interest rate reduction was announced on January 24th, the currency promptly fell from US\$0.79 to US\$0.76, a fall of over 3%.

The level of the Australian dollar predicted from relative price levels in the USA and Australia in Chart 11 suggests a purchasing power parity of something less than US\$ 0.70. However, since actual exchange rates tend to deviate widely on either side of purchasing power parities it is almost certain that - assuming Australian monetary policy is eased steadily and is not subject to a further tightening up after the election - the currency will weaken to a level below its purchasing power parity i.e. to somewhere in the range US\$ 0.60 - 0.70, though a steeper fall cannot be ruled out.

FORECAST : Domestic demand has remained firm because monetary growth has only recently started to decelerate significantly. Normally one would expect a lag of about 6-9 months between a slowdown in money growth and a slowdown in domestic demand. The relation between the yield curve and real domestic demand suggests a lag of about one year. Evidence from wage growth and other factors suggests that domestic demand will not weaken until the second quarter of 1990, and it may even be delayed until the third quarter. Moreover, if monetary policy is eased significantly during the pre-election period, or allowed to remain easy in the post-election period, the impact of the temporary downturn in money growth at the end of 1989 could be largely dissipated. In this event the A\$ would weaken significantly as short term interest rates are allowed to decline. Our purchasing power parity estimates suggest a fall to below US\$ 0.70 to perhaps US\$ 0.60, though an even greater fall cannot altogether be ruled out. In order to bring inflation down on a sustained basis the monetary aggregates must be brought down to single digit growth rates, and kept there for a prolonged period of time. The omens, however, are not good. The reduction of interest rates on two occasions in the past two months on the basis of only the slightest evidence of economic weakness and ahead of the election does not bode well for Australia's longer term inflation performance. This also implies a continuation of the long term depreciation of the currency.

HONG KONG

THE DYNAMICS OF THE DEPOSITS AND LOANS MARKETS

The Main Questions

The development of Hong Kong as one of the major offshore banking centres has been reflected in the composition of the assets and liabilities of licensed banks and of Deposit Taking Companies (DTCs). In particular bank deposits in foreign exchange have risen relative to those denominated in Hong Kong dollars. Since 1988, however, bank loans in local currency overtook in absolute terms Hong Kong dollar bank deposits. The general situation for DTCs has been roughly similar.

Charts 1 and 2 show total assets and deposits of banks and DTC, and their distribution between Hong Kong dollars and foreign currencies. Chart 3 shows that the proportion of bank and DTC assets denominated in foreign exchange increased almost continuously until 1987, signifying, of course, a corresponding decline in the proportion of Hong Kong dollar assets. Chart 4 shows the rapid rise of foreign exchange deposits with banks and DTCs. The large increase in 1982 was caused by the abolition of a 15% withholding tax on interest receivable from foreign exchange deposits as well as by the depreciation of the Hong Kong dollar. Normally this type of event would have caused a once-and-for-all adjustment, but in this case the proportion of foreign exchange deposits continued to rise. Finally Chart 5 completes the scene by illustrating the opening gap, since approximately the middle of 1988, between the total of Hong Kong dollar bank loans and deposits.

The overall picture in Hong Kong is that of a banking system whose assets and deposits are predominantly in foreign currencies and where banks are extending Hong Kong dollar loans against a relatively declining local currency deposit base. These developments have been interpreted as signs of a flight from the Hong Kong dollar and a growing mismatch between the assets and liabilities of banks. It has been suggested that the longer term consequences would be pressure on interest rates, on the linked HK-US dollar rate, a squeeze of the overall profitability and greater risk exposure of banks and DTCs.

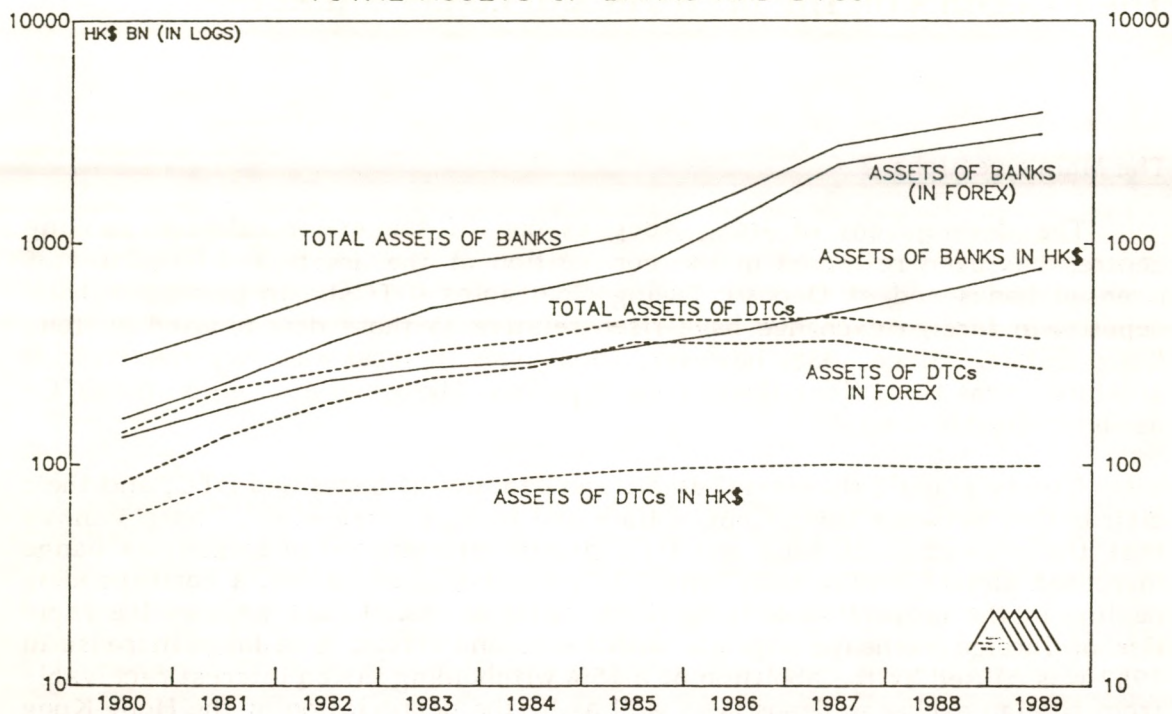
This article reviews these developments by focusing on three areas, the offshore activities of banks, the changing composition of their assets and liabilities and the behaviour of interest rate differentials and margins. The picture which emerges allows for a different interpretation of these developments and of their consequences for interest and exchange rates.

Analysis of Trends

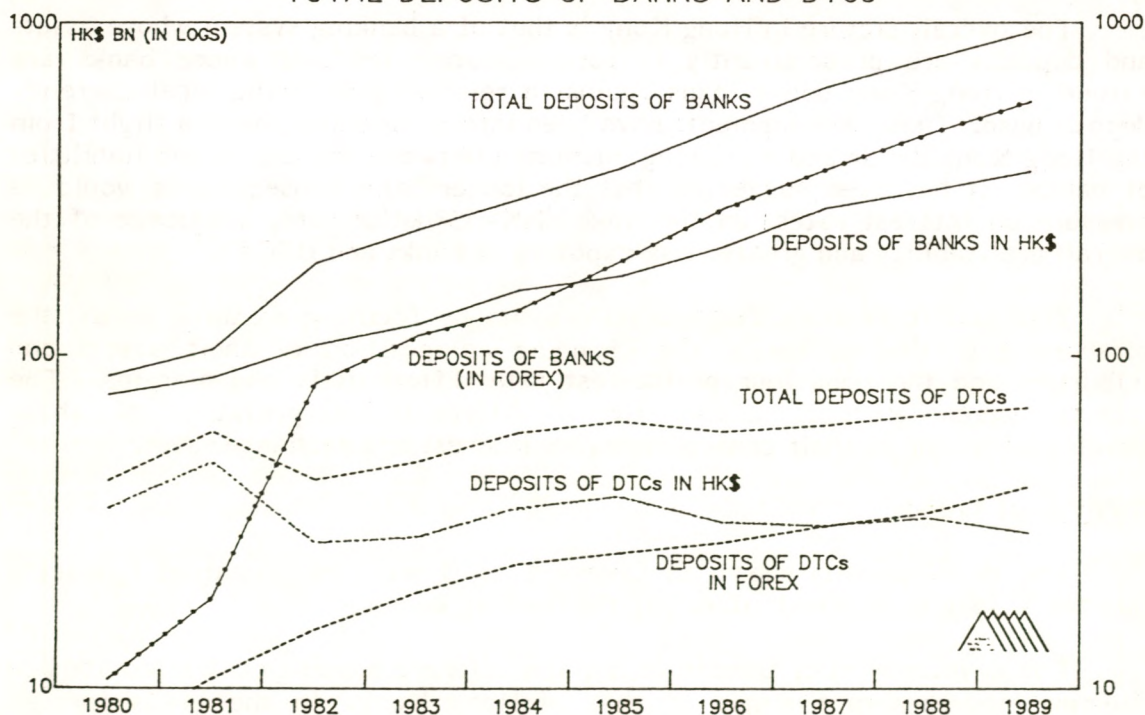
The developments shown in Charts 1 to 5 must be appraised against a number of long term trends affecting the banking sector.

The development of London as a major offshore banking centre provides an illuminating parallel example to that of Hong Kong. In the 1960s, foreign

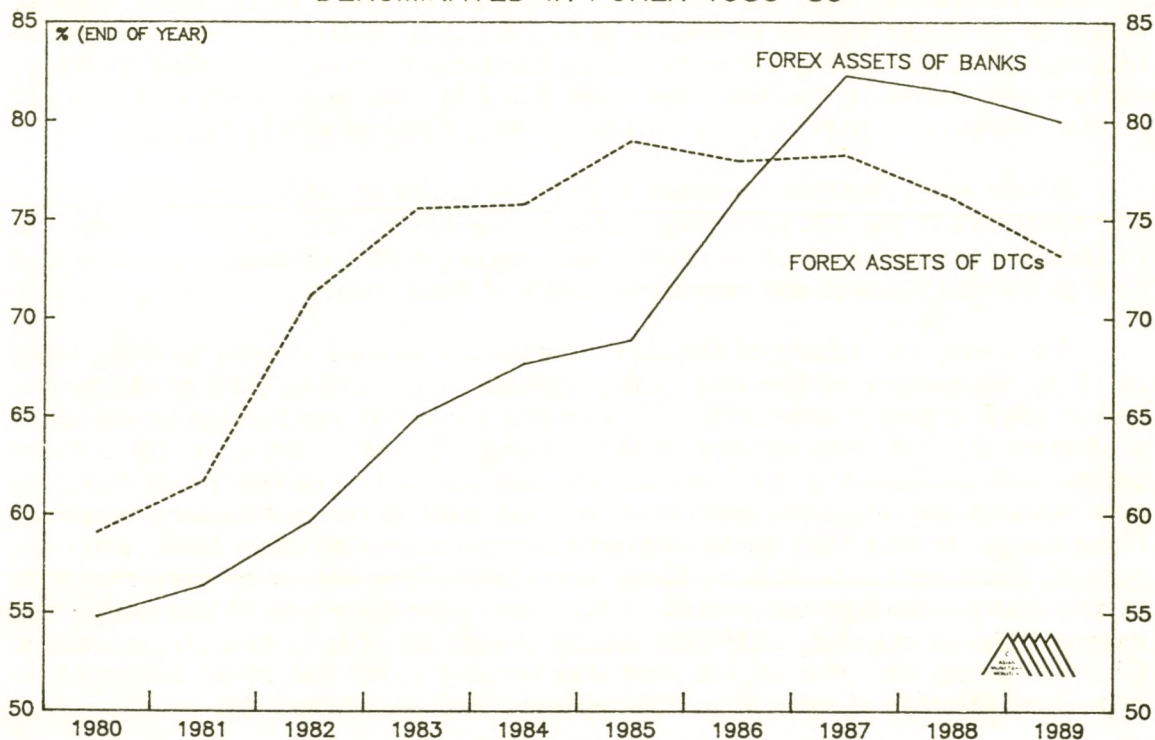
HONG KONG: CHART 1
TOTAL ASSETS OF BANKS AND DTCs



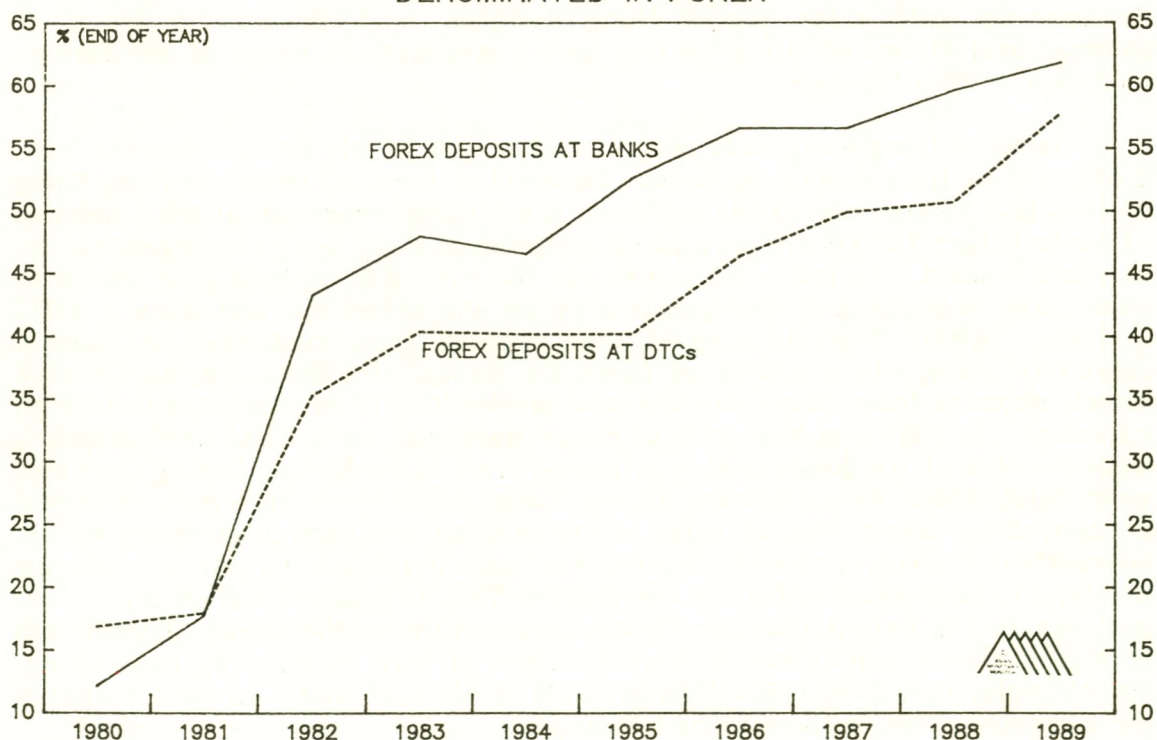
HONG KONG: CHART 2
TOTAL DEPOSITS OF BANKS AND DTCs



HONG KONG: CHART 3
PROPORTION OF ALL ASSETS OF BANKS AND DTCs
DENOMINATED IN FOREX 1980-89



HONG KONG: CHART 4
PROPORTION OF BANK AND DTC DEPOSITS FROM CUSTOMERS
DENOMINATED IN FOREX



exchange denominated liabilities of the London Clearing Banks rose faster in percentage terms than liabilities in the local currency, sterling. In 1960 net deposits in sterling with the London Clearing Banks stood at Pd. 6,901 million, rising to Pd 8,652 million in 1965 and to Pd. 9,801 million in 1969, an overall increase of 42%. During the same period the total external liabilities in foreign currency of banks in the UK rose from Pd. 633 million in 1960 to Pd. 2,122 million in 1965 and to Pd. 11,994 million in 1969, a rise of nearly 1800%!

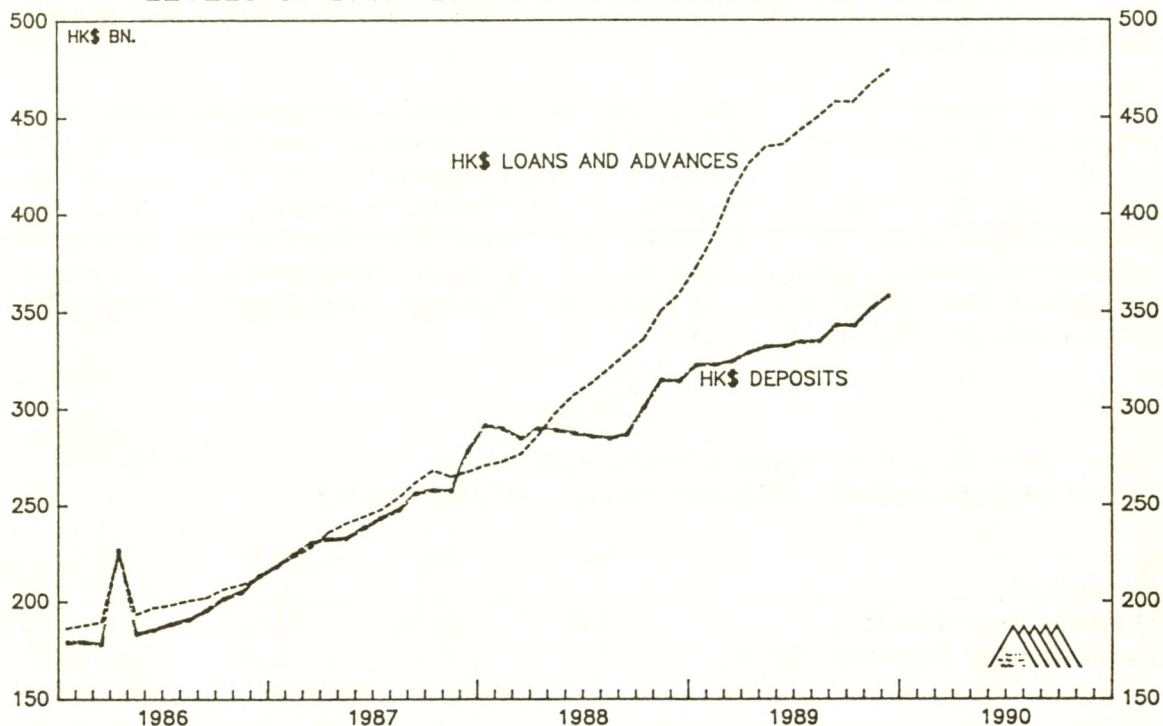
These early developments are also reflected in the structure of the assets and liabilities of the UK monetary sector in the 1980s. During 1982-89 deposits in foreign currency on a consolidated basis averaged 70% of total deposits whilst foreign currency assets also represented 68% of total assets.

Following the lifting of the last moratorium on bank entries to Hong Kong in 1978, the number of licensed banks increased from 123 in 1981 to 162 by the end of 1989, a rise of over 30%. Of these 162 banks 127 are foreign in the sense that they are not incorporated in Hong Kong. These banks draw funds from parent and affiliated institutions abroad and similarly channel funds from all over Asia to the relatively less restricted and more developed banking sector of Hong Kong. In mid 1989 banks had net external claims on other banks and non-banking customers outside Hong Kong worth HK\$222 billion, with more than 92% of this being in foreign currencies. DTCs during the same period had similar net external claims standing at HK\$90 billion almost all of it in foreign currencies. Chart 6 traces this rise of net overseas lending which for banks averaged an annual growth rate of more than 50% between 1983 and June 1989.

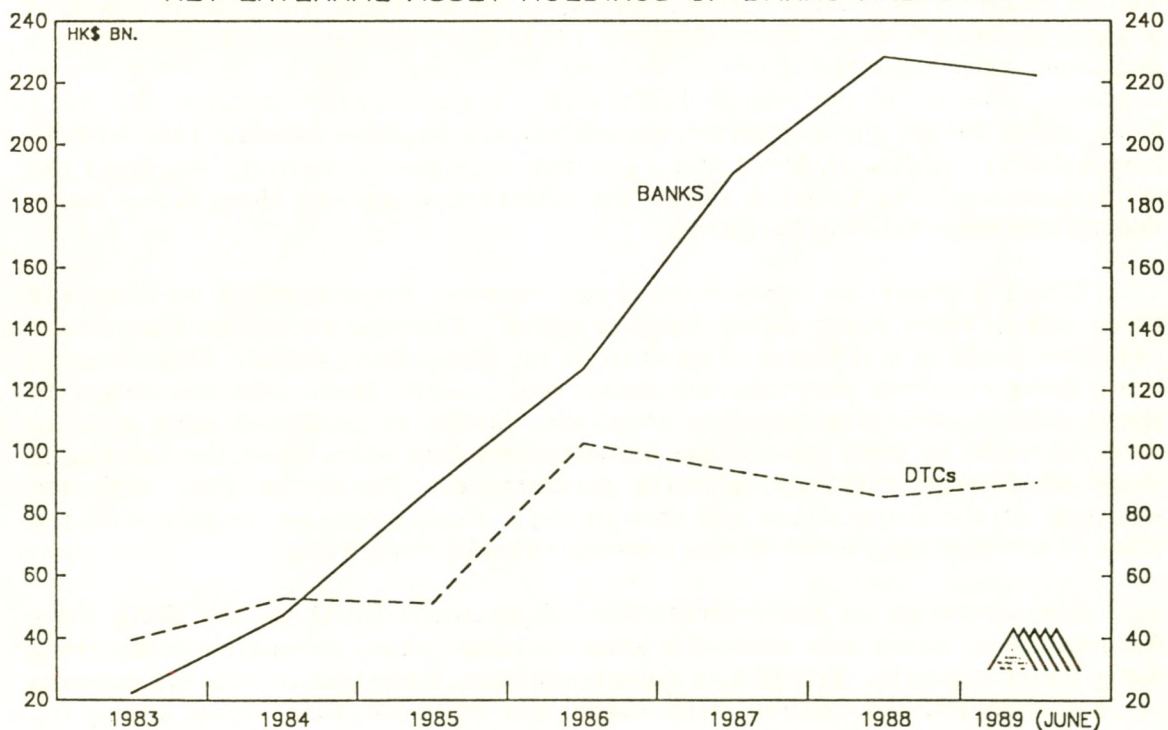
Hong Kong's relative position in the offshore market can only be approximated, but in terms of the overall size of international lending it is likely to be third following London and Tokyo. A 1989 Bank of International Settlements (BIS) study placed Hong Kong in fifth position in terms of international claims of BIS reporting banks, and sixth in terms of net foreign exchange market turnover.

Banks in Hong Kong have progressively come to rely less on deposits from customers as their source of funds. Deposits in local currency, or Hong Kong dollars, plus foreign currencies represent a declining proportion of the liabilities of banks (Chart 7). This is yet again a symptom of Hong Kong's emergence as an offshore market. As indicated, banks use their Hong Kong base as a centre to book both deposits and loans, primarily in the interbank and bank - DTC markets. Chart 7 would suggest that deposits from customers are now a relatively unimportant source of funds for banks. Furthermore, as Chart 4 shows, deposits from customers are now predominantly denominated in foreign exchange. In 1989 less than 25% of banks' liabilities were customers' deposits, with the rest of the funds coming primarily from other banks. During the same year total loans to customers (Hong Kong dollar plus foreign currencies) accounted for about 30% of total assets in local and foreign currency terms. Given these figures, it could be argued that banks in Hong Kong primarily borrow and lend to each other in foreign currencies! This, in a superficial sense, is true, but only to the extent that the figures concentrate on the banks' offshore and foreign currency activities. A more balanced picture emerges by considering, for example, that over 1980-89 nearly 60% of all bank assets in local currency were accounted for by loans to customers.

HONG KONG: CHART 5
LEVELS OF BANK LOANS AND ADVANCES AND DEPOSITS



HONG KONG: CHART 6
NET EXTERNAL ASSET HOLDINGS OF BANKS AND DTCs



There are a number of factors which help to explain these developments. The picture can be significantly clarified by adopting a simple double entry book-keeping approach and concentrating first on the deposits (liabilities) side and then on loans (assets).

The relative decline of Hong Kong dollar deposits has been attributed to a progressively accelerating flight from the local currency in the runup to 1997. It is important at the outset to emphasise that in absolute terms the total size of Hong Kong dollar deposits did not exhibit a declining trend during 1980-1989, the fall therefore being relative rather than absolute. Furthermore a simple estimate of income velocity of the Hong Kong dollar component of money shows no signs of instability, indicating that money holdings in relation to money GDP are not changing rapidly (Table 1).

Table 1

Income Velocity of Circulation (Nominal GDP/M)
Annual average 1980-88, (HK\$ component of M1, M2 and M3)

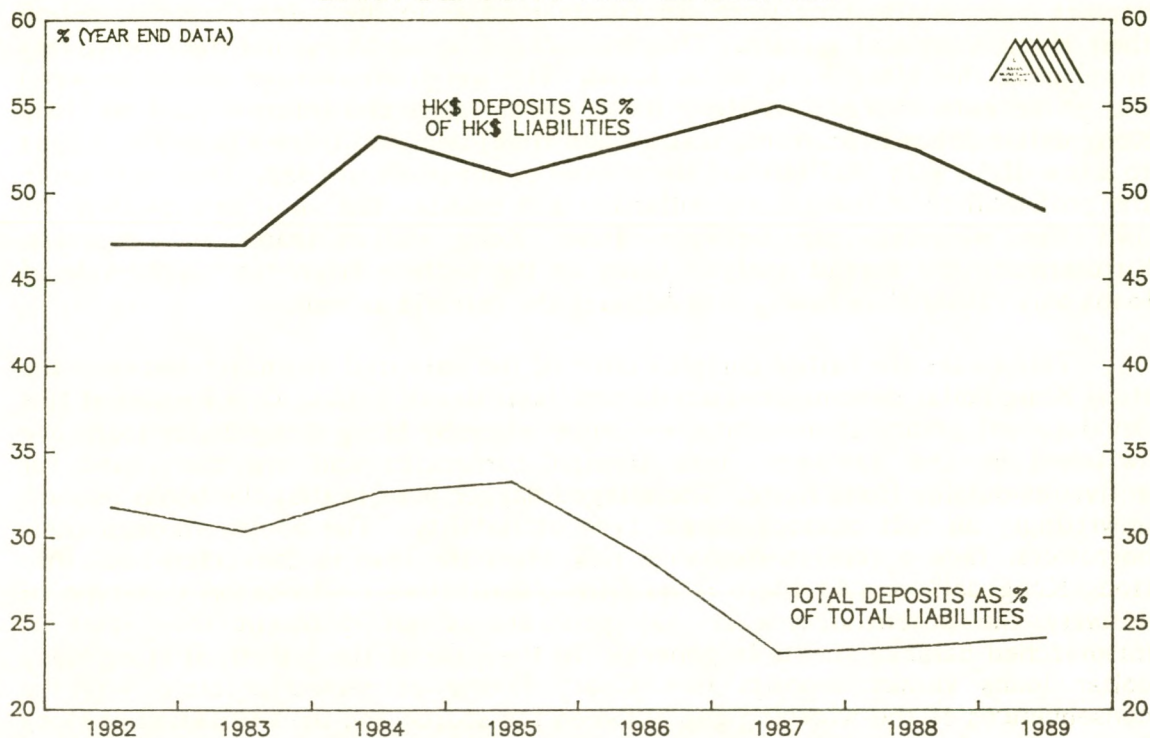
	M1	M2	M3
Average (A)	6.34	1.41	1.14
Standard Deviation (SD)	0.87	0.18	0.06
Coefficient of Variation (SD/A)	0.13	0.12	0.05

Perhaps the most important variable affecting the switch away from Hong Kong dollar deposits has been the differential between US\$ and HK\$ interest rates. As Chart 8 shows, the interest rate differential on three month Eurodollar and Hong Kong dollar bank deposits remained continuously positive in favour of the US dollar rates from the middle of 1984. As the Hong Kong dollar has been pegged to the US dollar since October 1983, depositors could make an almost exchange rate risk-free gain by holding US rather than Hong Kong dollar deposits. Indeed at the end of 1987, when revaluation pressures on the Hong Kong dollar forced the authorities to introduce a negative interest rate scheme (see AMM Vol 12 No. 1), there was a positive incentive to switch away from the local currency. As Chart 8 shows the differential against Hong Kong dollar deposits increased during that time.

Chart 9 shows the movements of real rates on three month Eurodollar and three month Hong Kong dollar bank deposits. The real return on Eurodollars remained positive and higher than that on the Hong Kong dollar. Depositors in Hong Kong received progressively lower real returns from 1985 onwards with these returns becoming negative from the middle of 1986 and staying so to date. As can be seen from Chart 4 there were two years when the increasing share of foreign exchange deposits accelerated. Firstly in 1982 with the abolition of the interest tax and then in 1985 which coincides roughly with the start of the declining trend of real interest rates in Hong Kong.

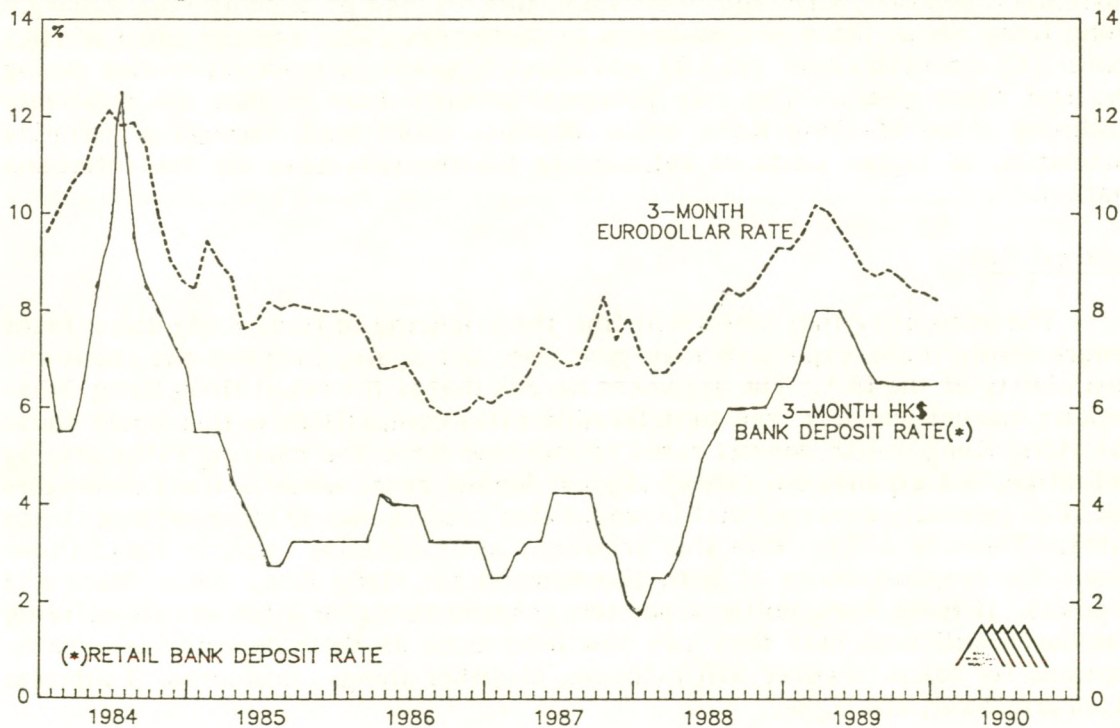
The operation of the Interest Rate Agreement (IRA) by the Hong Kong Association of Banks also ensured a lower nominal return on smaller retail Hong Kong dollar deposits. The IRA, a government sanctioned cartel, covers deposits of less than HK\$0.5 million with maturities of more than three, and up to,

HONG KONG: CHART 7
BANK DEPOSITS AND LIABILITIES



19/1/90

HONG KONG: CHART 8
3-MONTH HK\$ BANK DEPOSIT AND 3-MONTH EURODOLLAR DEPOSIT RATES



20/2/90

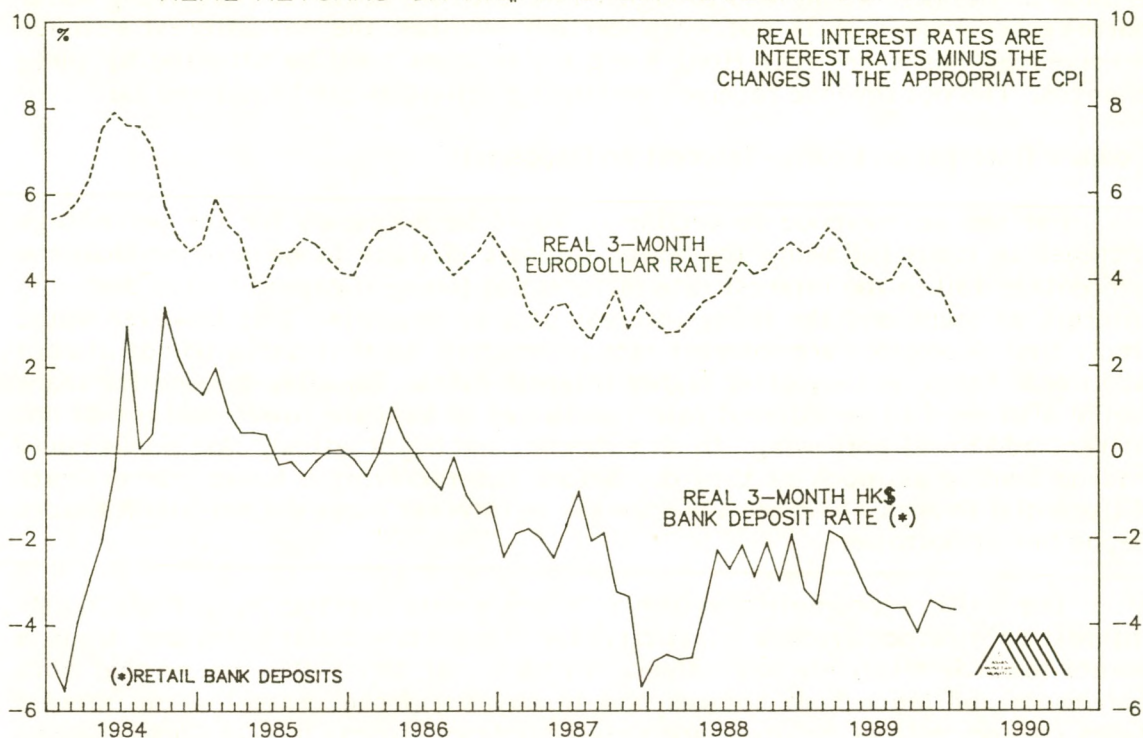
fifteen months. By restricting competition for small deposits this agreement ensured that banks had access to a relatively inexpensive Hong Kong dollar deposit base, whilst they were not constrained as to the rates they charged on their Hong Kong dollar loans. This encouraged banks to expand their relatively more profitable Hong Kong dollar loans. The weighted average spread between the prime rate charged on Hong Kong dollar loans and interest paid on Hong Kong dollar deposits (current, savings and time) declined from a high 7% in 1981 to a low of 3.7% in 1987 but has since risen to about 4% in 1989. This increase in the profitability of Hong Kong dollar loans is possibly too small to explain on its own the widening gap between Hong Kong dollar loans and deposits. Furthermore the spread analysis looks at the picture from the supply side of loans only rather than taking into account the demand as well.

This raises the rather complex issue of the potential mismatch between the Hong Kong dollar denominated assets and liabilities of banks. One version of this development points at anecdotal evidence whereby Hong Kong dollar loans are switched by the borrowers into foreign currencies and are then used for activities outside Hong Kong. The alleged danger here is that the banks acquire unwittingly an "off balance sheet" type of liability. The banks, through their borrowers, face a foreign exchange risk when the loan is converted back into Hong Kong dollars. As there is no firm quantitative evidence on this type of activity the potential risk it may generate is not different from that of mismatched balance sheets in general. In the case of the growth of Hong Kong dollar loans versus deposits (see Chart 5) the perceived problem was the consequences of the widening gap between the source and the utilisation of Hong Kong dollar funds. This, however, is a rather naive approach to the assets - liabilities management insofar as it looks only at one component of the liabilities of banks, namely their Hong Kong dollar deposits from customers. The sum total of Hong Kong dollar liabilities of banks, i.e. interbank plus DTC deposits, customers' deposits, CDs and other liabilities, exceed by a comfortable margin Hong Kong dollar loans and advances to customers. The average ratio of HK\$ loans/HK\$ liabilities over 1983-89 was about 57% with a tendency to rise during the last three years. The only potential problem here is that the relatively declining share of Hong Kong dollar deposits could lead, through a maturity mismatch, to higher costs of refinancing the deposits base via the interbank market.

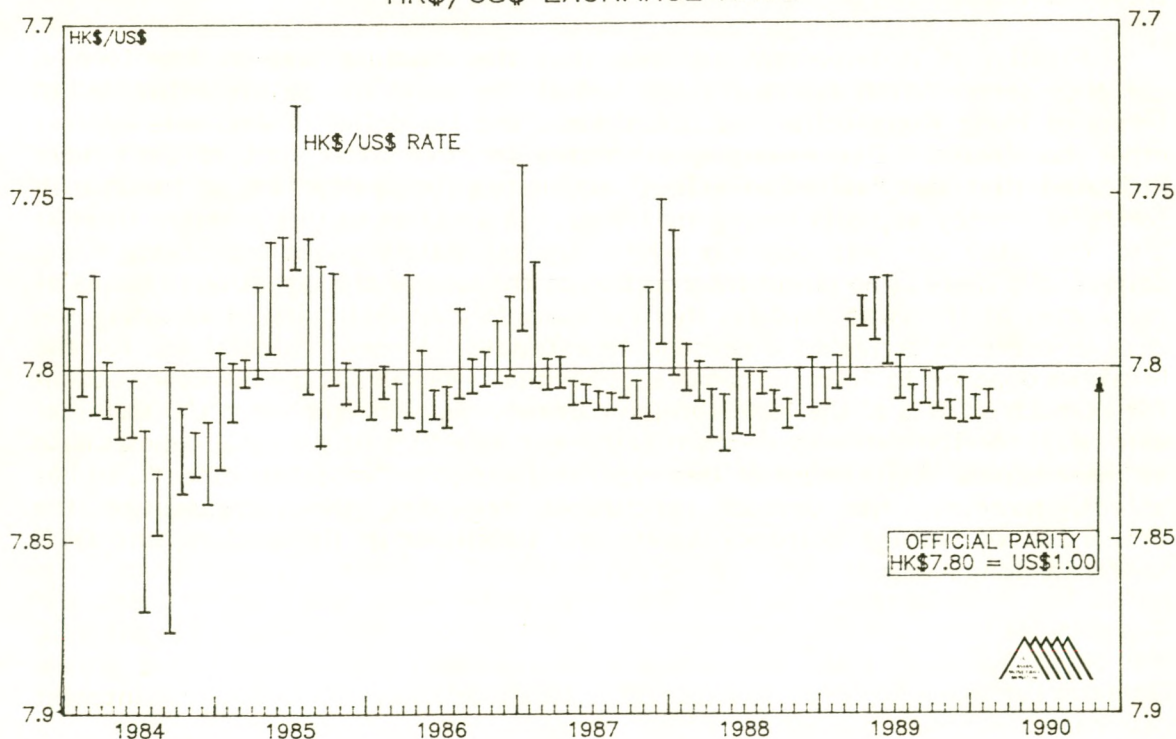
Interest Rates

The possibility that banks will find the financing of Hong Kong dollar loans progressively more expensive may give rise, yet again, to questions about the desirability of the IRA. The argument here is that if the retail Hong Kong dollar deposit market was left free to determine rates competitively, this would cause the Hong Kong dollar deposit rates to increase since the existing rates are, by definition, not equilibrium rates. Higher deposit rates would attract depositors but it is generally assumed that it would also cause banks to increase their loans rates. There is a flaw with this argument as it contains implicit assumptions about the responsiveness of both the demand for Hong Kong dollar loans and deposits. If Hong Kong dollar depositors respond to higher interest rate offered, the banks will find that they can now lend more as their deposit base grows. Demand for loans however will increase, all other things considered, if interest rates are lower, not higher.

HONG KONG: CHART 9
REAL RETURNS ON HK\$ AND EURODOLLAR DEPOSITS



HONG KONG: CHART 10
HK\$/US\$ EXCHANGE RATE



It is therefore not certain whether the outright abolition or the gradual erosion of the IRA would lead to higher interest rate costs for Hong Kong dollar borrowers. Indeed it is not even certain whether the net interest revenue received by banks on their Hong Kong dollar loans need be affected by these changes. The net revenue received on lending activities can be defined as:

$\text{Loans} \times (\text{Interest on Loans} - \text{Interest on Deposits})$

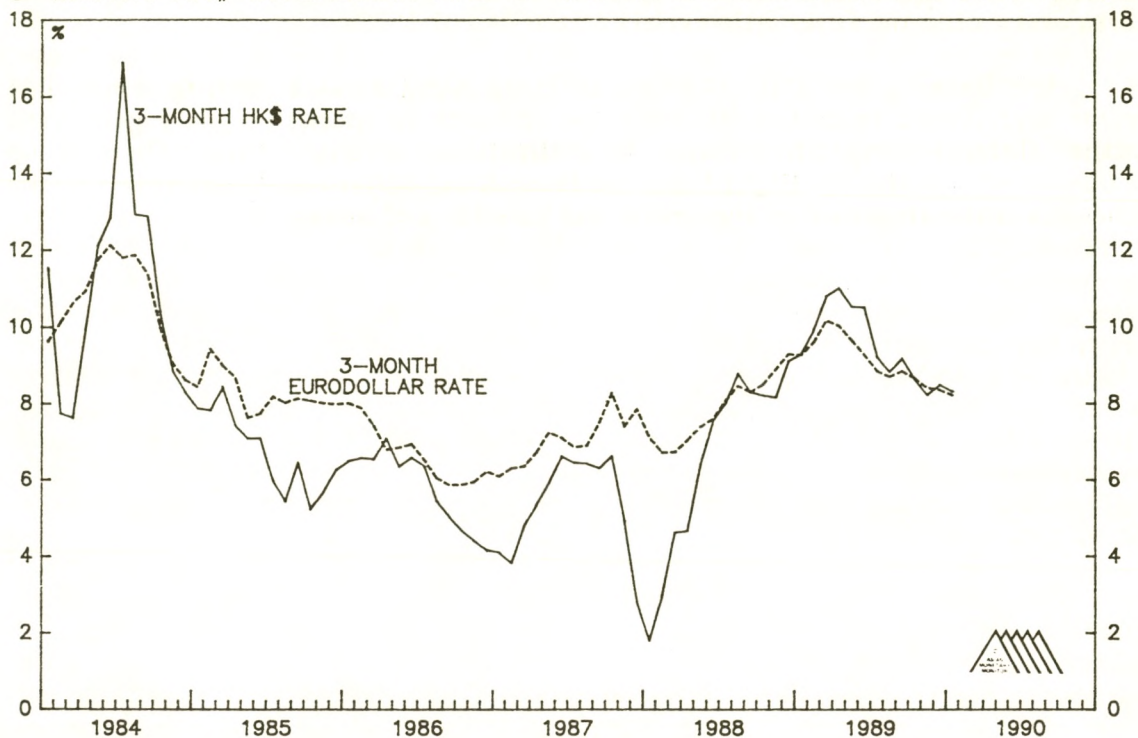
For the net revenue to decline it would be necessary for the percentage increase in loans following the lower interest charges to be smaller than the percentage fall in the interest rate differential (margin) caused by the declining interest on loans and the rising interest paid on deposits. This however would imply that depositors are interest rate insensitive, so that banks do not attract additional funds as they offer higher interest rates. Equally, demand for loans would also need to be interest rate insensitive so that the lower charges do not attract additional borrowing. In an extreme, and hypothetical, case banks could end up lending as much as they did before but receiving a lower interest rate differential (margin) because the changes in interest rates did not attract more depositors or borrowers.

The little econometric evidence which exists for the Hong Kong dollar interest rate responsiveness (elasticity) for Hong Kong dollar loans and deposits points towards relatively low values. In technical terms this means that both borrowers and lenders do not respond to any significant extent when interest rates change, neither however are they completely insensitive to these changes as assumed in the extreme version of events used as an example above. As markets develop and new instruments of borrowing or lending are introduced (low denomination CDs, flexible foreign currency deposits, commercial paper etc.) these elasticities can be expected to increase over time.

Finally, it is important to note that the absolute size of the foreign currency denominated assets or liabilities of the banks can be overestimated in terms of Hong Kong dollars at times when the US dollar is declining against other currencies. For example, estimates for the latter half of 1985 have indicated that this "valuation effect" accounted for nearly 14% of the rise in foreign currency deposits during that time. In addition to this problem there is also the issue of swap deposits which are ultimately payable in Hong Kong dollars. As there is no direct information of the size or the direction in terms of currencies of the swap deposits there is considerable difficulty in adjusting the data in order to arrive at a reasonable estimate. Recent calculations for the local, as opposed to foreign, banks suggest that swap deposits may now account for as much as 54% of the total foreign currency deposits and hence the true (i.e. non-swap) foreign currency deposits represent only 25% of the total deposit base of these banks. Adjustment of this type, including the "valuation effect", do not affect, however, the overall conclusions regarding the increases of the proportion of foreign currency assets and liabilities in the banking and DTC sector in Hong Kong.

HONG KONG: CHART 11

3-MONTH HK\$ INTERBANK AND 3-MONTH EURODOLLAR DEPOSIT RATES



FORECAST: The continuing incentives for banks to lend Hong Kong dollars and to maintain an inexpensive Hong Kong dollar deposits base will lead to increasing competitive pressures on their interest rate margins. The potential increases in the cost of financing Hong Kong dollar loans via sources other than direct customer deposits will exert additional pressures on the viability of the IRA. There is, however, no reason to believe that if higher interest rates were to be paid on Hong Kong dollar deposits this would automatically lead to higher charges on Hong Kong dollar loans.

Conclusions

The emergence of Hong Kong's banking system as a major offshore centre explains the relative increase of foreign currency liabilities and assets in comparison to the Hong Kong dollar denominated activities. The widening gap between Hong Kong dollar loans and deposits is explainable by a combination of institutional and market developments. The operation of IRA has encouraged depositors to seek higher returns in foreign exchange deposits and made bank loans in Hong Kong dollar more profitable than they would have been in the absence of the IRA. However, the potential risk and mismatch exposure of banks is overstated. Charts 10 and 11 on the HK\$-US\$ exchange rate and the three month Eurodollar and three month Hong Kong dollar interbank rates show that since the middle of 1988 when the Hong Kong dollar loans-deposits gap developed there has been no discernible pressure on the HK\$-US\$ exchange rate. Neither was there any sign of pressure being transformed via the linked exchange rate system to higher interest rates. Under the mechanism of the peg in force in Hong Kong, any persistent deviation of the exchange rate from the HK\$7.80

level would be reflected on the interbank rate movements, as it did, for example, during the uncertainty surrounding the Sino-British talks in the second half of 1984 and during the revaluation crisis at the end of 1987.

The banking and DTC markets in Hong Kong exhibit nothing more than clear and direct responses of their participants to market signals generated either through competitive forces or institutional arrangements. There is no evidence of a sustained flight from the Hong Kong dollar nor of potentially risky changes in the structure of the assets and liabilities of banks.



The interbank rate movements in Hong Kong are closely linked to the market signals generated by competitive forces or institutional arrangements. The sharp rise in the rate in mid-1984 was a direct response to the uncertainty surrounding the Sino-British talks. The subsequent sharp decline and stabilization of the rate reflect the market's response to the resolution of the uncertainty and the revaluation crisis at the end of 1987.

The banking and DTC markets in Hong Kong exhibit nothing more than clear and direct responses of their participants to market signals generated either through competitive forces or institutional arrangements. There is no evidence of a sustained flight from the Hong Kong dollar nor of potentially risky changes in the structure of the assets and liabilities of banks.

TAIWAN THE POTENTIAL FOR HIGHER INFLATION

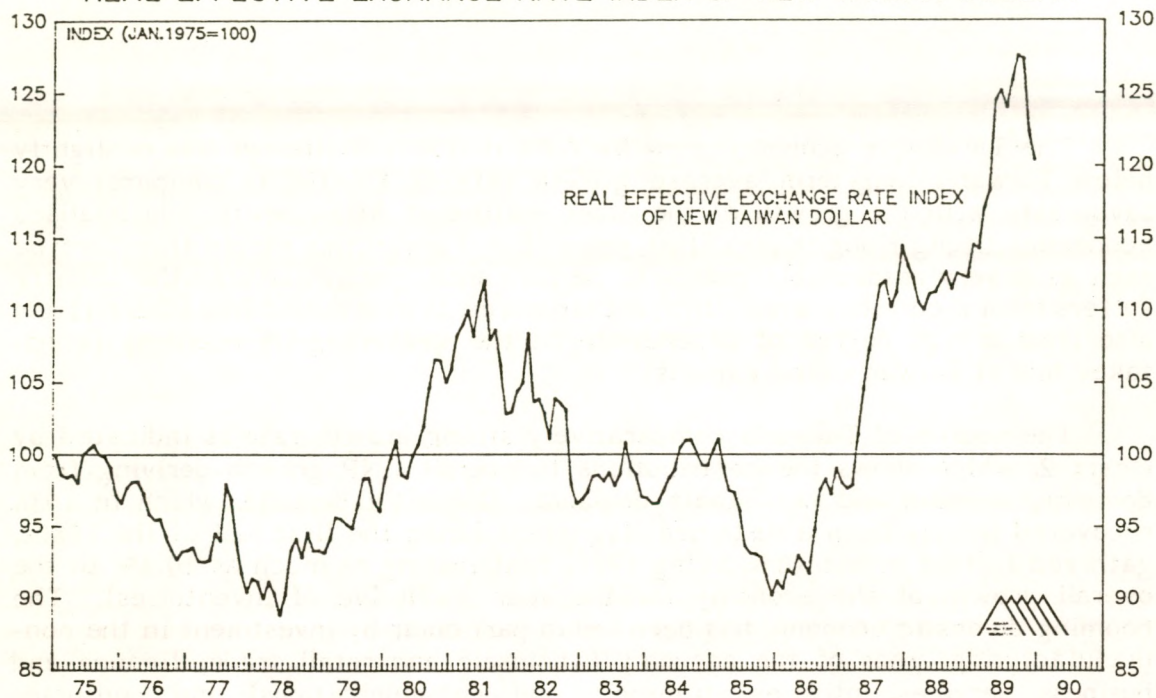
The Taiwanese economy grew by 7.2% in 1989. Although this is slightly below Taiwan's long-term average growth rate of 8%-9%, it compares very favourably with the growth of the other north-east Asian newly industrialised economies (Hong Kong, Korea) last year. For Taiwan this should therefore be seen as a very respectable economic performance, particularly as the country suffers from a currency which, by most measures, is overvalued (see Chart 1) and also from a high degree of dependence on the weakening US economy (which takes 36% of Taiwan's total exports).

The source of Taiwan's comparatively strong growth rate is indicated by Chart 2, which shows the contributions to overall GNP growth deriving from domestic demand and net export demand. Domestic demand, which in 1986 recovered sharply from a sustained stagnation during the first half of the 1980s, gathered further momentum during 1989, contributing as much as 10.5% to the overall growth of the economy for the year (exclusive of inventories). The booming domestic economy has been led in particular by investment in the non-manufacturing areas of the economy (wholesale and retail trade, finance and business services, utilities, transport and communications) and consumer spending.

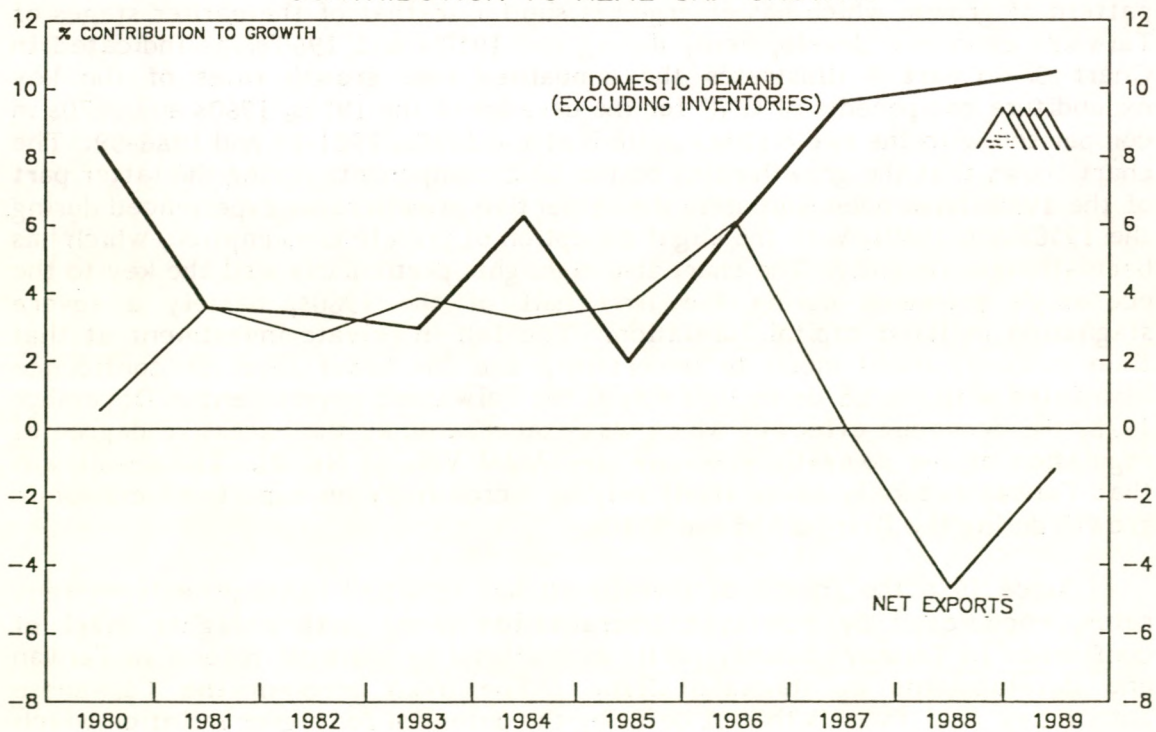
Over the last four years Taiwan appears to have made the necessary transition away from excessive reliance on export-led growth towards a more balanced pattern of growth, with a strong domestic economy. In many ways the pattern of growth which has emerged is similar to that of the earlier stages of Taiwan's economic development, during the 1950's and 1960's, as indicated in Chart 3. Chart 3 illustrates the annualised real growth rates of the key expenditure components of GNP for the decades of the 1950s, 1960s and 1970s in comparison with the two distinct periods of the 1980s, 1981-85 and 1986-89. The chart shows that the growth rates of the GNE components during the latter part of the 1980s have been similar to the respective growth rates experienced during the 1950s and 1960s, with the slight exception of private consumption, which has been stronger recently. The chart also highlights particularly well the key to the economy's problems during the first half of the 1980s, namely a severe stagnation in fixed capital formation. The fall in private investment at that time probably owed much to uncertainty and the lower level of confidence associated with the US de-recognition of the Taiwanese government in December 1978, the economic effect of which was exacerbated by the excessive degree of regulation of the domestic economy (see AMM Vol. 11 No. 2). The result was that Taiwan naturally found itself relying increasingly on export-led economic growth during the first half of the 1980s.

Since 1986 the growth of investment has returned to its prior high trend rates, encouraged by economic liberalisation along with a higher level of confidence in Taiwan's future, partly encouraged by political reform in Taiwan and developments in mainland China. The main problem the Taiwanese authorities now face is that of defusing the potential for higher inflation which

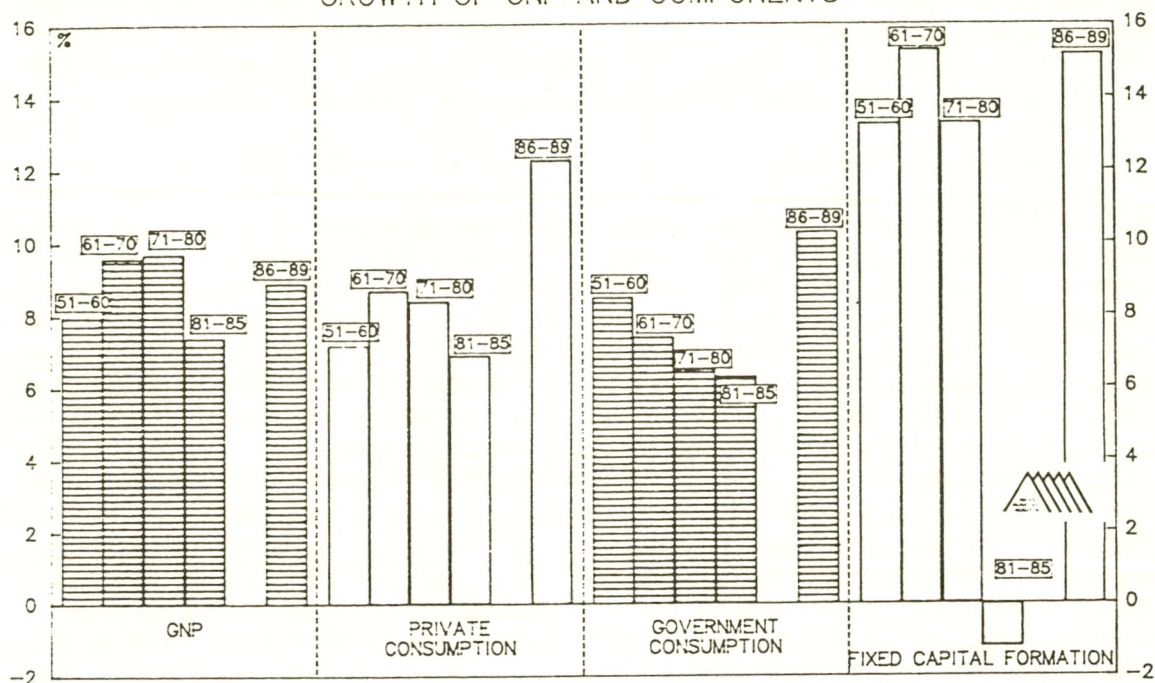
TAIWAN: CHART 1
REAL EFFECTIVE EXCHANGE RATE INDEX OF NEW TAIWAN DOLLAR



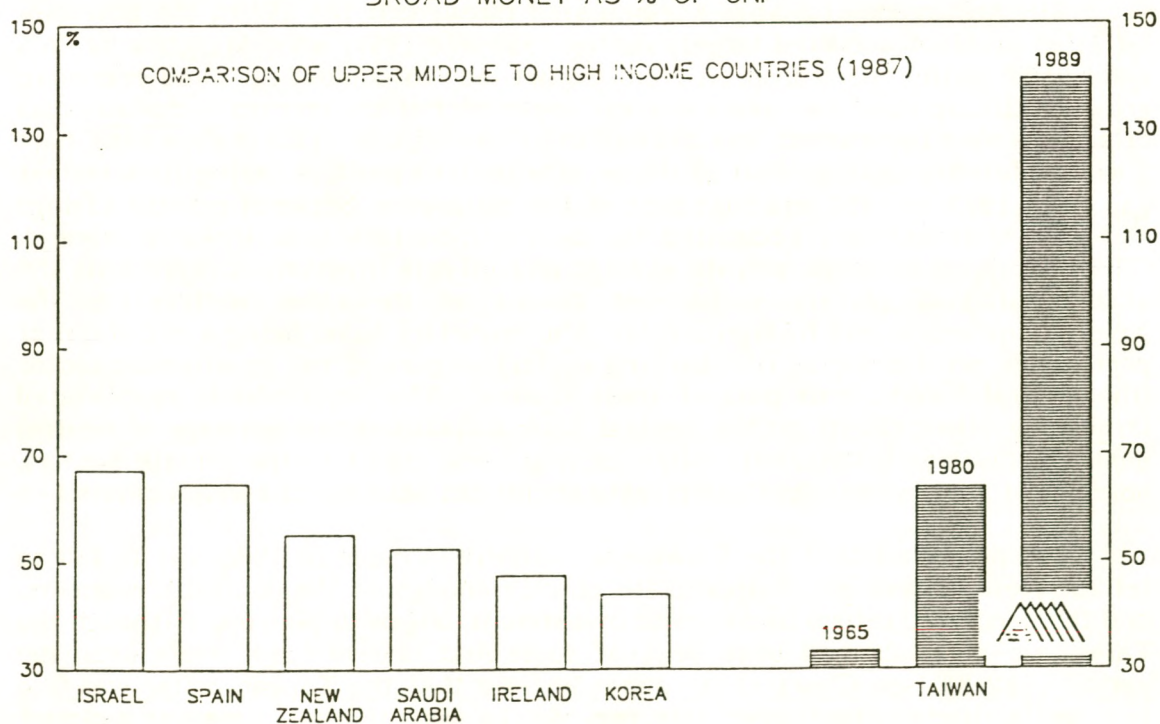
TAIWAN: CHART 2
CONTRIBUTION TO REAL GNP GROWTH



TAIWAN: CHART 3
GROWTH OF GNP AND COMPONENTS



TAIWAN: CHART 4
BROAD MONEY AS % OF GNP



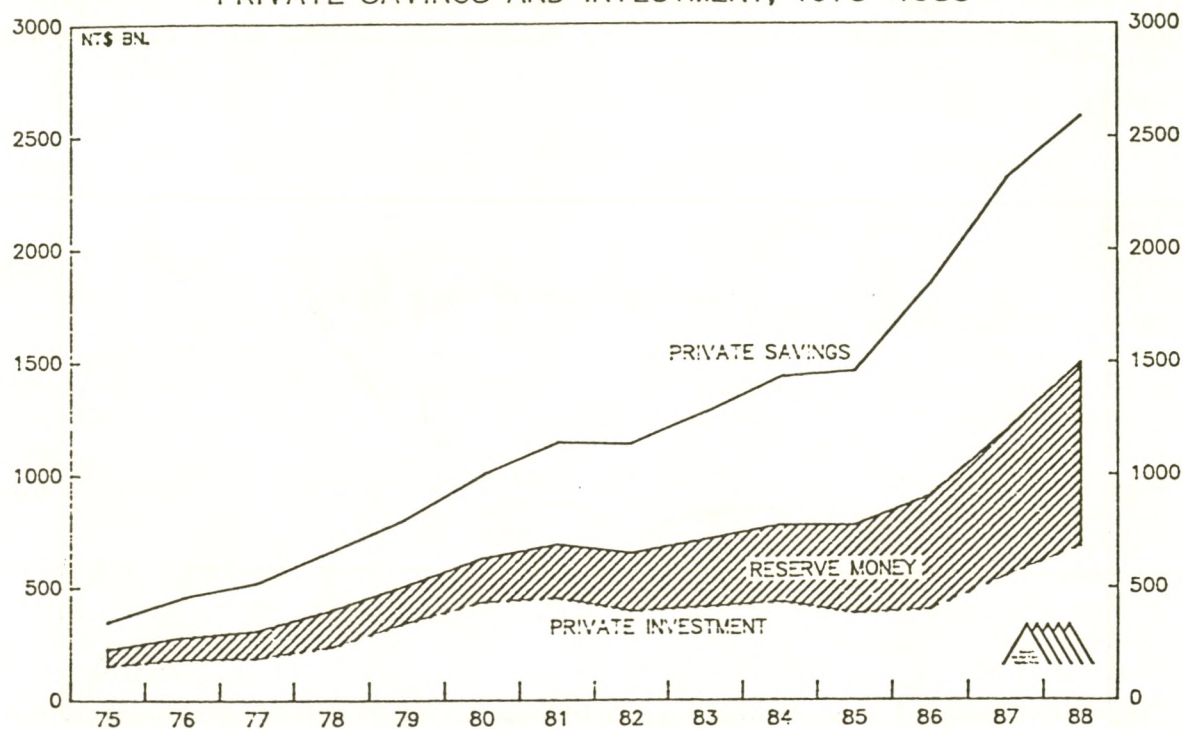
has arisen, particularly during the rapid transition to higher domestic demand growth (since 1986). This potential for inflation is represented by the build-up in excess money holdings, which occurred despite the Central Bank of China's (CBC) best attempts to sterilise the monetary effects of the persistently large current account surplus (see AMM Vol. 10 No. 1 and AMM Vol. 11 No. 2).

One possible indication of the magnitude of potential inflation in Taiwan might be given by a comparison of the ratio of the broad money stock to GNP in Taiwan with the same ratio for other economies of a similar income per head. This comparison is made in Chart 4 which compares M2 expressed as a percent of GNP in Taiwan in 1965, 1980 and 1989 with the same ratio for other upper middle to high income countries (as defined by the World Bank, with a GNP per capita of US\$6,000-US\$8,000), and Korea, in 1987. However, this type of comparison provides at best an extremely rough guide to the potential for inflation because the 'equilibrium' stable ratio of broad money to GNP is determined by institutional, regulatory and other factors as well as the income level of the economy. Taken at face value the chart suggests an average ratio of M2 to GNP of around 50% to 70%, which was roughly the ratio obtaining in Taiwan in 1980, prior to the build-up of the large balance of payments surpluses. On this basis the current ratio of M2 to GNP of 142% would require an increase in the price level of 100% to reduce the ratio of money to nominal GNP to 70%. However, two important caveats should be noted. Firstly, it is likely that the demand for money to hold in Taiwan is high relative to other economies with a similar income per head because of the high savings ratio and the limited availability of other investment vehicles (i.e. other than bank deposits), justifying a higher M2 to GNP ratio in Taiwan. Secondly, any potential increase in the price level could obviously be reduced over time through real economic growth, assuming no further growth in the money stock.

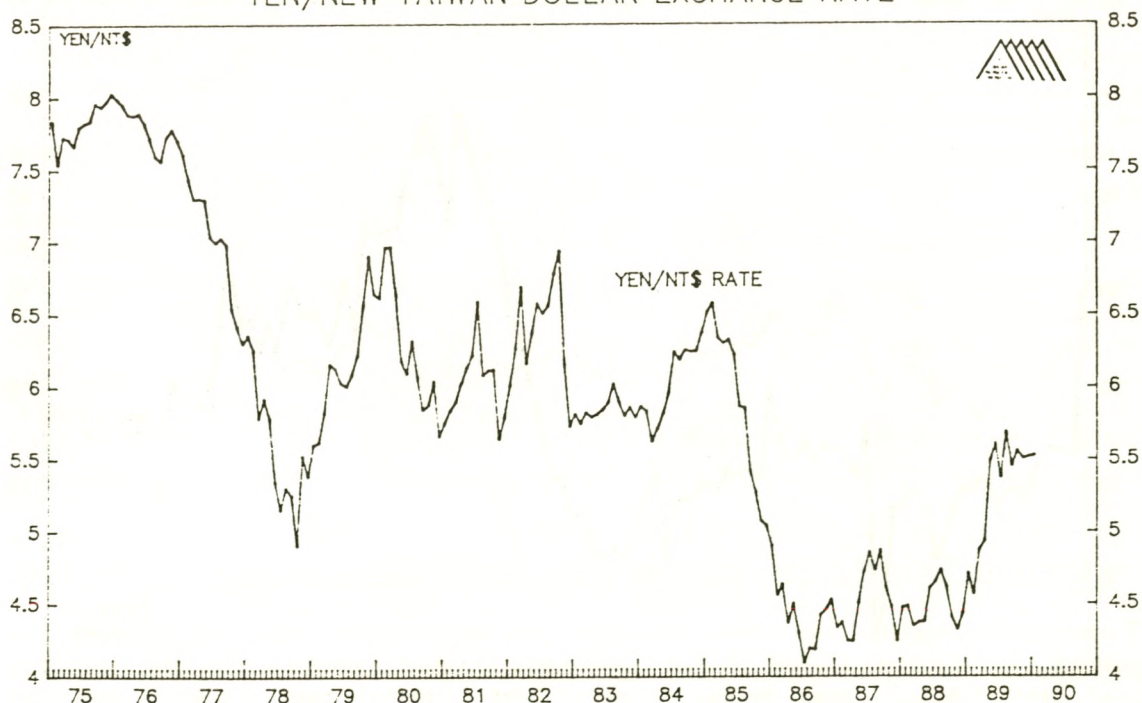
Although money holdings accumulated throughout the 1980s, the potential inflation problem occurred largely during 1986 and 1987, when M2 grew by 26% annualised during the transition from export-led to domestically-led economic growth. During these two years a much larger part of the private sector's excess of savings over investment was allowed to be 'monetised'. This is shown in Chart 5 which plots the development of the private sector's positive savings/investment gap from 1975 to 1988 and that part of the difference between private savings and private investment accounted for by the monetary base (reserve money). (The difference between private savings and private investment represents the accumulation of private sector net claims on the other sectors i.e. the government sector and foreign sector. The monetary base, being a net claim of part of the private sector (the banking sector) on part of the government sector (the central bank) forms part of these claims. The remainder is represented largely by other claims on the central bank (private sector holdings of central bank sterilisation instruments minus central bank credit to the private sector), holdings of government debt and private sector net holdings of foreign assets.)

The policy mistake the Taiwanese authorities made in 1986 was to fail to let the New Taiwan dollar appreciate quickly enough as the domestic economy, and the perceived return to domestic investment, began to pick up. Although the Taiwanese currency had been kept at somewhat undervalued levels over the period 1982-85 (see Chart 1) it cannot be said that the Taiwan dollar was 'too low' or 'artificially low' over this period. Taiwan at that time was a closed

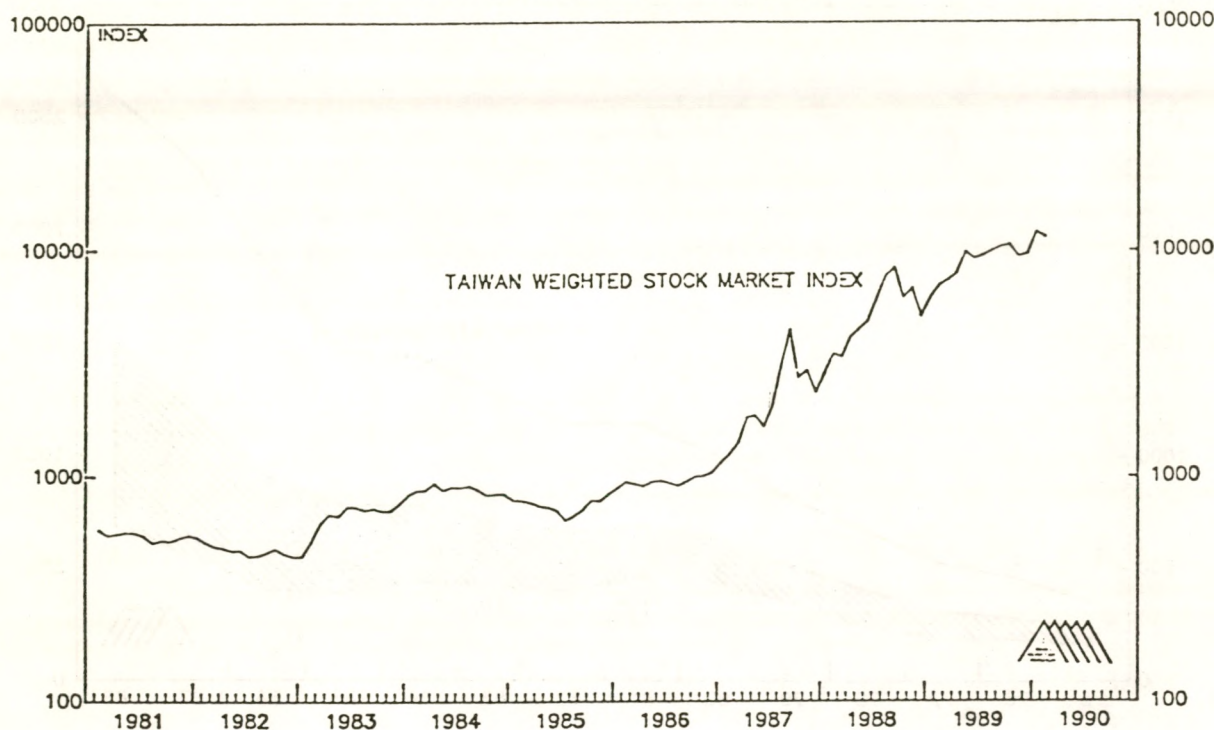
TAIWAN: CHART 5
PRIVATE SAVINGS AND INVESTMENT, 1975-1988



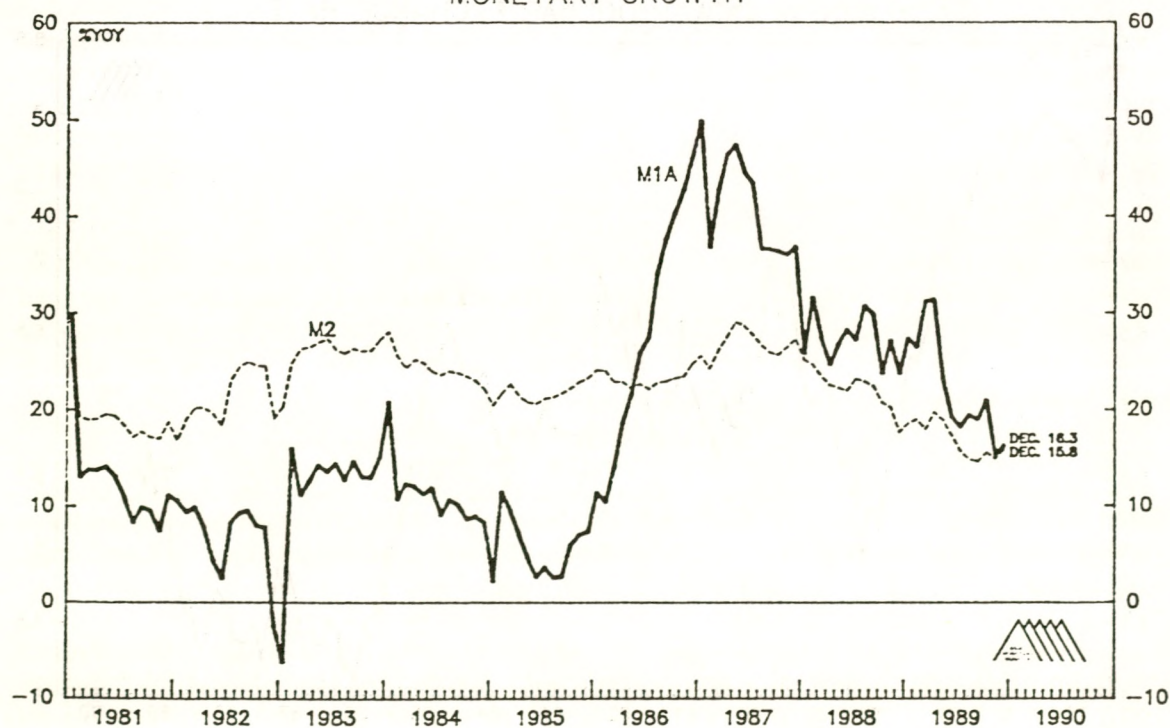
TAIWAN: CHART 6
YEN/NEW TAIWAN DOLLAR EXCHANGE RATE



TAIWAN: CHART 7
THE STOCK MARKET INDEX



TAIWAN: CHART 8
MONETARY GROWTH



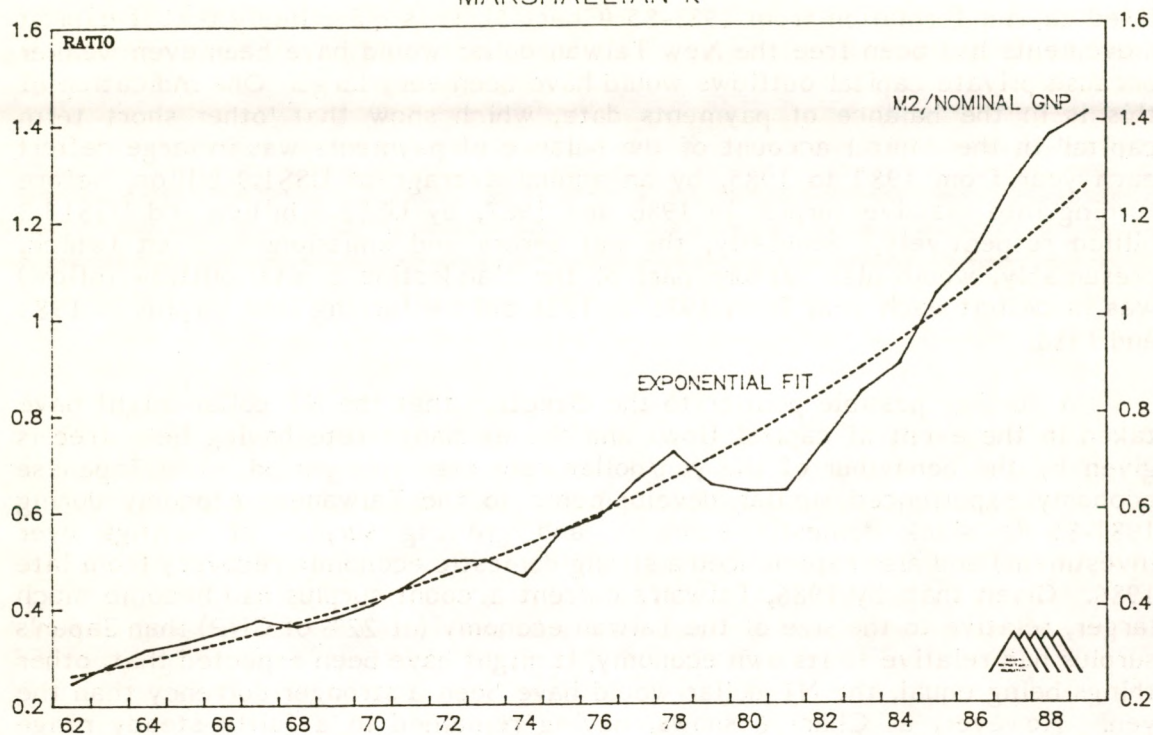
economy with very restrictive controls over capital outflows. Given the perceived low rate of return to domestic investment, reflected in the slump in fixed capital formation from 1981-85 (Chart 5), it is quite likely that if capital movements had been free the New Taiwan dollar would have been even weaker because private capital outflows would have been very large. One indication of this is in the balance of payments data, which show that 'other short term capital' in the capital account of the balance of payments was in large deficit each year from 1982 to 1985, by an annual average of US\$1.9 billion, before turning into massive surplus in 1986 and 1987, by US\$8.5 billion and US\$13.0 billion respectively. Similarly, the net errors and omissions account (which, presumably, would also capture part of the clandestine capital outflow/inflow) was in deficit each year from 1981 to 1984 before turning into surplus in 1985 and 1986.

A further possible pointer to the direction that the NT dollar might have taken in the event of capital flows and the exchange rate having been free is given by the behaviour of the yen/dollar rate over this period. The Japanese economy experienced similar developments to the Taiwanese economy during 1981-85 (a slack domestic economy and growing surplus of savings over investment) and also experienced a strong domestic economic recovery from late 1986. Given that, by 1986, Taiwan's current account surplus had become much larger, relative to the size of the Taiwan economy (at 22% of GNP) than Japan's surplus had relative to its own economy, it might have been expected that, other things being equal, the NT dollar would have been a stronger currency than the yen. However, as Chart 6 shows, having remained in a fairly steady range against the yen between 1980 and 1984, the NT dollar depreciated sharply against the yen - by about 35% - during 1985 and 1986 as the Taiwanese authorities attempted to control the appreciation of the currency vis-a-vis the US dollar, but the yen appreciated rapidly.

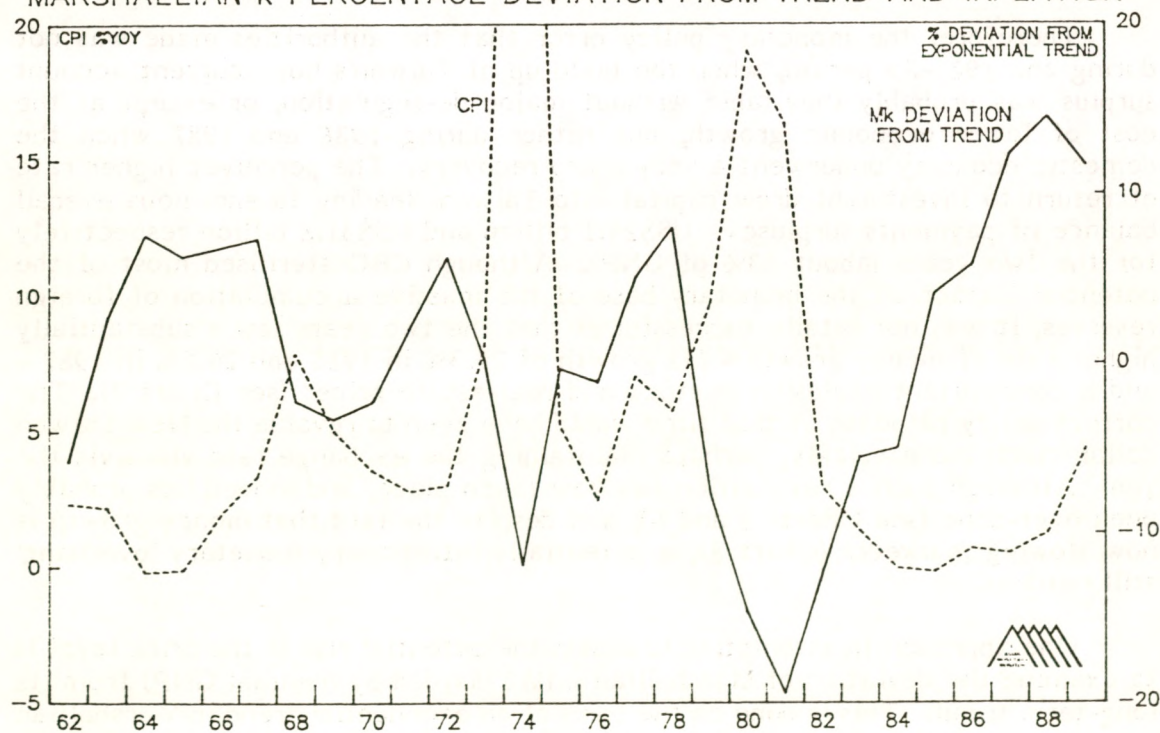
Therefore, the monetary policy error that the authorities made was not during the 1981-85 period, when the build up of Taiwan's huge current account surplus was probably inevitable without major de-regulation, or except at the cost of lower economic growth, but rather during 1986 and 1987 when the domestic economy underwent a very sharp recovery. The perceived higher rate of return to investment drew capital into Taiwan, leading to enormous overall balance of payments surpluses - US\$24.1 billion and US\$31.8 billion respectively for the two years (about 33% of GNP). Although CBC sterilised most of the potential impact on the monetary base of the massive accumulation of foreign reserves, it was not totally successful in that the two years saw a substantially higher rate of money growth - M2 growth of 25.3% in 1986 and 26.6% in 1987 - and a concomitant explosion in stock and real estate prices (see Chart 7). The correct policy response at that time would have been to revalue the New Taiwan dollar much more quickly, perhaps maintaining the exchange rate vis-a-vis the yen. Although such a revaluation has now taken place, and indeed has probably been over-done (see Charts 1 and 6), and despite the fact that money growth is now slowing markedly (Chart 8), a potentially inflationary monetary 'overhang' still remains.

One approach to attempting to assess the potential rise in the price level is to examine the deviation of Marshallian k (M2 divided by nominal GNP) from its long-term trend. This is done on the basis of an exponential trend in Marshallian

TAIWAN: CHART 9
MARSHALLIAN k



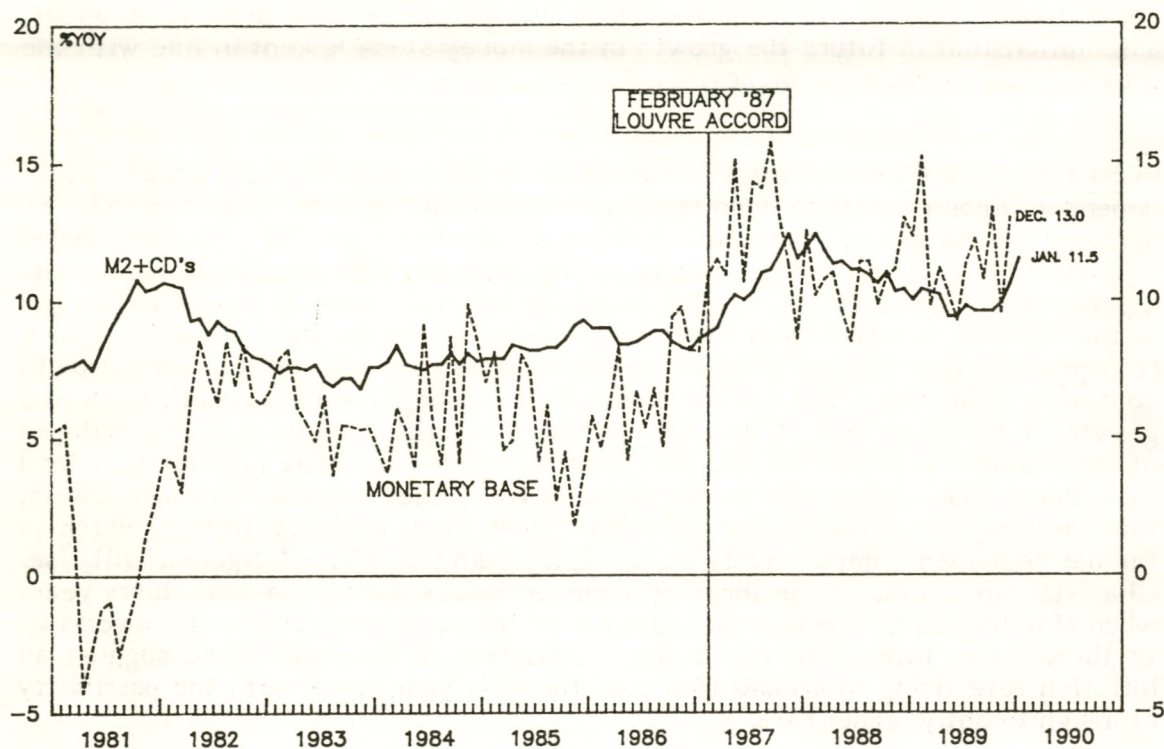
TAIWAN: CHART 10
MARSHALLIAN k PERCENTAGE DEVIATION FROM TREND AND INFLATION



k in Chart 9. This can be seen as the most conservative basis for measuring inflationary potential because it assumes that the demand for money exhibits a tendency to grow in line with the wealth of the economy, rather than with income. On this conservative basis Marshallian k is currently approximately 12% above trend, implying the potential for a 12% increase in the price level on the assumption that in future the growth in the money stock is kept in line with the growth in the demand for money.

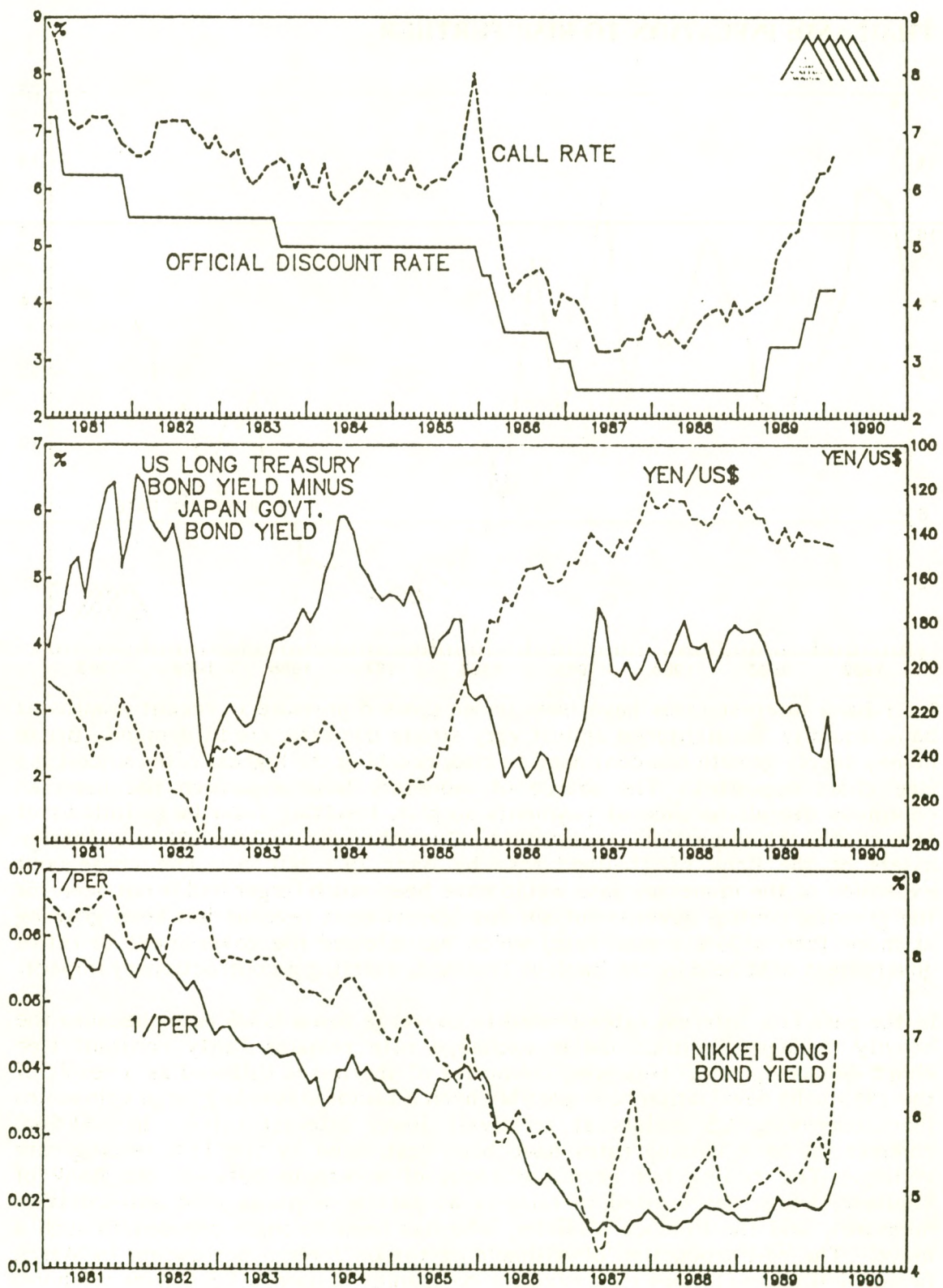
FORECAST: Taiwan has made a successful transition away from growth over-dependent upon exports to domestically-led economic growth. Unfortunately, by delaying the necessary appreciation of the currency for too long the authorities allowed a build-up of excess liquidity during 1986 and 1987 which still represents a potential for generalised price inflation. So far this potential has only emerged in the form of an inflation of asset prices, such as real estate and equity prices. It is possible that a more generalised inflation can be avoided if money growth continues to be restricted and the monetary 'overhang' is eliminated through real growth of the economy. A less satisfactory possibility might be that a collapse of stock and real estate prices, triggered by some exogenous factor, could lead to a sharp above-trend rise in the demand for money relative to other assets, thus defusing the potential for inflation. More likely is that inflation, which so far has remained comparatively subdued according to official figures, will rise. Chart 10 shows that on the three previous occasions during the past thirty years when Marshallian k rose to around 8% above trend, higher inflation followed two to three years later. On this basis, a conservative forecast would suggest an inflation rate rising to around 10% over the next year or so, with the possibility of a significantly higher rate.

JAPAN: THE RISE IN INTEREST RATES

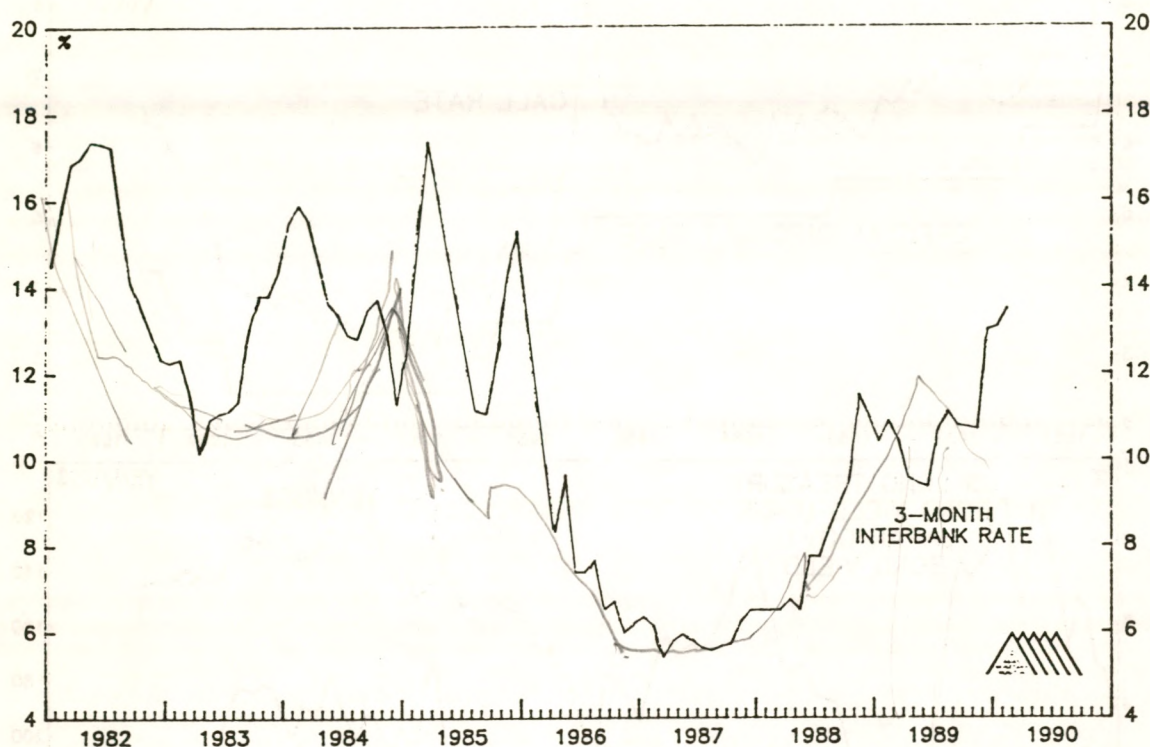


The strong growth of M2+CDs (see chart above) and developing inflationary pressures led the Bank of Japan to increase the official discount rate in December. This was the third successive increase in nine months (see chart opposite, top panel). The increase in the short term interest rates was followed by a sharp rise in bond yields, thus narrowing down substantially the US-Japan long term interest differential (middle panel, opposite). The continuing fall of the Yen/Dollar exchange rate is now reflecting the twin pressures of inflationary expectations in Japan and Japan's declining surplus in the current account. The fall in the exchange rate continued despite the fact that Japanese bonds became progressively more attractive to investors as compared to US bonds.

On the basis of historic trends there has been, in general, a strong relationship between Japanese bond yields and the earnings yield (inverse P/E) of Japanese stocks (see bottom panel, opposite). With bond yields at 7% there could therefore be a sharp correction in stock prices as the P/E ratio falls in line. However, a more likely outcome is that in the short term bond yields could decline slightly while P/Es continue to fall. A downward movement in Japanese bond yields will be helped by any easing of interest rates in Germany and the US. The Japanese authorities, however, will be considerably constrained as to the degree they can relax their policy towards interest rates by a gradually rising rate of inflation at home.



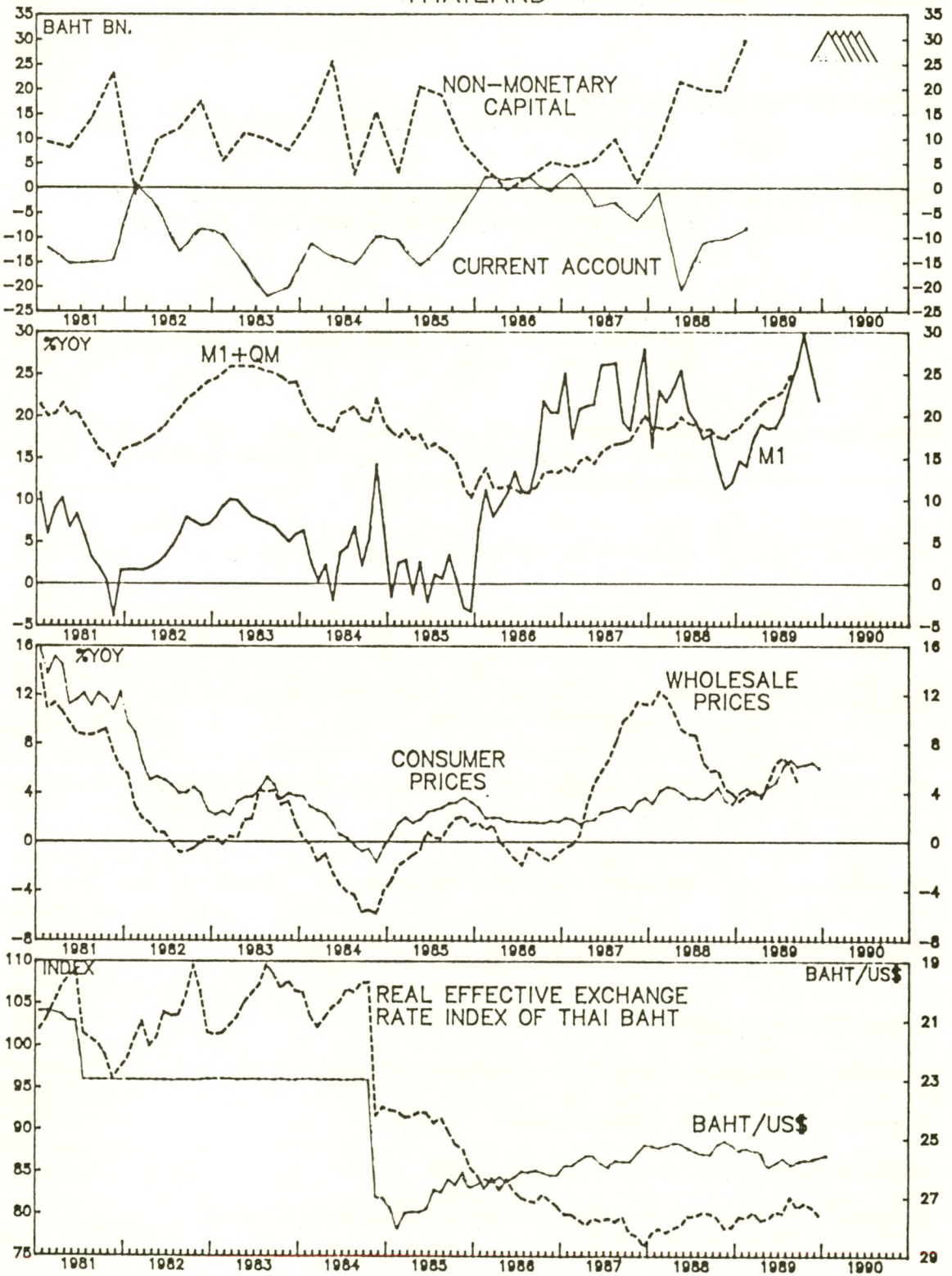
THAILAND: INFLATION TO RISE FURTHER



Inter-bank interest rates have been under upward pressure in recent months as bank liquidity has tightened amidst very strong domestic credit demand. Broad money supply growth has continued to rise, reaching the highest rates since 1983 (see chart opposite). The source of monetary base expansion has been an enormous overall balance of payments surplus, resulting from large inflows of foreign direct and portfolio investment. Over the year to June 1989 net foreign assets of the Bank of Thailand rose by Baht 79.1 billion. The consequent expansion of the monetary base would have been much larger had it not been for the growing central government surplus (government revenue has been growing at more than a 30% annual rate) which has allowed the government to retire government debt held by the Bank of Thailand, exerting a contractionary impact.

In the past Thai interest rates tended to converge towards US rates because the heavily managed Baht/US dollar exchange rate remains fairly constant (see chart, bottom panel). However, memories of the losses suffered as a result of the 1984 baht devaluation have possibly been a factor dissuading large companies from borrowing US dollars at relatively lower interest rates. In addition, commercial bank lending rates have been restrained by the 15% lending rate ceiling. The ceiling has been the focus of a dispute between the Bank of Thailand, which has wanted to raise it as part of a package of anti-inflation measures, and the Finance Minister, who has been strongly opposed to such a move. The re-introduction of withholding tax on foreign borrowings in March (which will make it more expensive for companies to borrow US dollars offshore) could pave the way for higher bank lending rates. However, it is unlikely that this will curtail the trend to higher inflation. Any effective anti-inflation policy would probably have to include a revaluation of the Baht.

THAILAND



AN INDEX OF AMM ARTICLES PUBLISHED IN VOLUME 13

EPISODES FROM ASIAN MONETARY HISTORY

A Brief History of Hong Kong Monetary Standards (13/5)

REGIONAL SURVEY: Intra-Regional Trade and Investment in East Asia (13/3)
Foreign Direct Investment and Trade: Japan, ASEAN and the
NICs (13/6)

AUSTRALIA: The Bond Market in Retreat (13/1)
A Reconstruction of the Recent Relation Between Money and the
Business Cycle (13/5)

HONG KONG: The Symptoms and Causes of Structural Change (13/1)
Further Developments Affecting the Linked Rate System for the
Hong Kong Dollar (13/3)

JAPAN: Prospects for the Domestic Demand-Led Expansion (13/2)

MACAU: The Currency System of Macau (13/4)

MALAYSIA: An Abrupt Tightening of Monetary Policy (13/4)
On a Higher Growth Path (13/6)

NEW ZEALAND: Tight Money Will Continue to Restrain Economic Recovery
(13/2)

SINGAPORE: Weakness in Growth Only Temporary (13/4)

SOUTH KOREA: Adjustment Without Inflation (13/6)

ECONOMIC CAPSULES:

Australia: Fiscal Policy Not as Tight as Perceived (13/2)

China: The Impact of the Peking Massacre (13/3)

Hong Kong: Domestic Exports Will Remain Weak (13/6)

Indonesia: An Easing of Monetary Policy Has Accompanied Financial
Deregulation (13/5)

Japan: No Signs of an Imminent Pick-Up in Inflation (13/1)
Japan: Rising Long-Term Capital Outflows Have Weakened the Yen (13/5)
Japan: The Trend in The Core Rate of Inflation (13/6)

Malaysia: Monetary Growth Set to Rise (13/1)

Philippines: A Difficult Adjustment Lies Ahead (13/6)

Singapore: Money Growth Rises as the Economy Slows (13/2)

S. Korea: Deregulation of the Financial System Runs into Problems (13/1)

S. Korea: The Adjustment to Slower Growth (13/3)

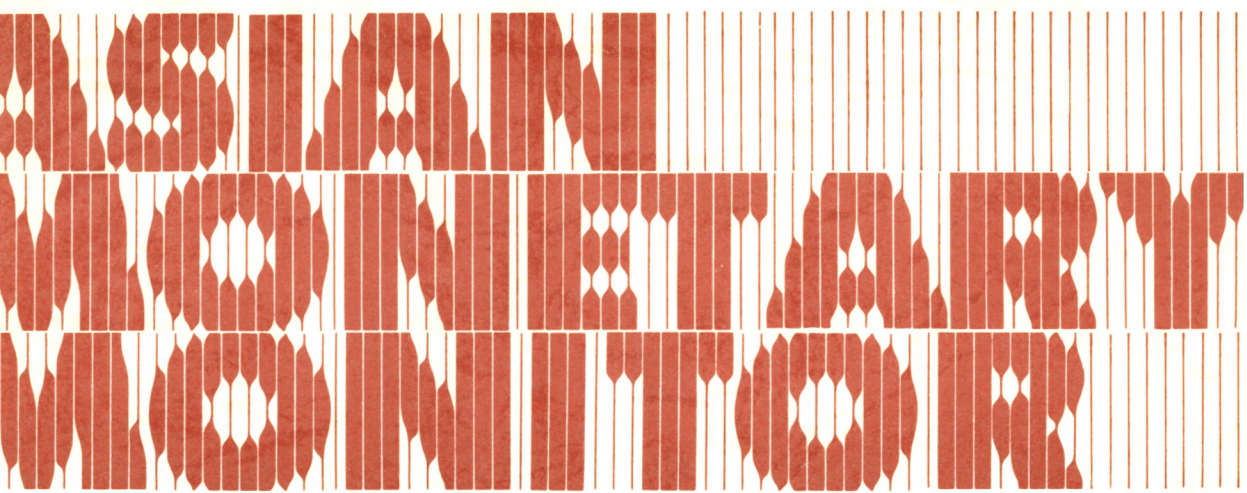
Taiwan: Controlling Inflation Now the Central Bank's Overriding Priority (13/2)

Taiwan: Monetary Conditions Are not as Tight as Suggested by M1 (13/4)

Thailand: Interest Rates Rise as Trade Deficit Deteriorates (13/1)

Thailand: Interest Rates to Start Rising Again (13/3)





CONTENTS

Page

HONG KONG

- The Exchange Fund and Monetary Policy 1
by Andrew Freris

THAILAND

- Higher Interest Rates Are Unlikely to Curb Inflation 19
by Tim Lee

ECONOMIC CAPSULES

- Singapore: At the Peak of the Business Cycle TJL 28
South Korea: Inflationary Pressures AFF 30





John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Tim J. Lee
Editor
Senior Economist
G.T. Management (Asia) Ltd.



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 129 Hong Kong.

ASIAN MONETARY MONITOR

March - April, 1990

Vol.14 No.2

HONG KONG THE EXCHANGE FUND AND MONETARY POLICY

Introduction

In July 1988 the Hong Kong Government announced a series of measures which modified the mechanism of maintaining the Hong Kong-US dollar link. The new policy allowed the Exchange Fund to undertake a form of open market operations which could affect interbank liquidity and hence interest rates. An essential aspect of these new policies was the creation of an additional component to the monetary base of Hong Kong's banking system which up to then consisted only of the note issue.

The July 1988 policy measures and their effect on the monetary base were described and analysed in two previous issues of this journal (AMM July-August 1988 and May-June 1989).

The aim of this article is to bring the discussion up to date by recapitulating the technical aspects of the operations of these new measures, to reappraise their effectiveness and to outline another important and related development, the introduction in March 1990 of the Exchange Fund bills. The bills represent a logical extension of the intervention operations of the Exchange Fund in addition to being a significant innovation in the rather restricted short term capital market of Hong Kong.

As the Exchange Fund itself lies at the heart of these developments, it is important at this stage to define precisely and exactly its functions and role in Hong Kong's monetary and fiscal system. Judging by the public and press discussions surrounding the introduction of the Exchange Fund bills, as well as the announcement of an extensive programme of public infrastructure investment in the March 1990 Government Budget, there is still considerable confusion as to the exact nature of the Fund. This is compounded by the refusal of the authorities to reveal the exact size of a major component of the Fund, thus making it the object of the "best guessed at secret" in the territory.

The Information Memorandum of the Exchange Fund bills issued by the Monetary Affairs Branch contains an authoritative definition and description of the Fund. This definition is reproduced as Appendix 1 of this article.

The Exchange Fund effectively contains two main "funds" on its assets side. Firstly, the foreign exchange reserves of Hong Kong and other foreign exchange assets accumulated over the lifetime of the Fund. These correspond to the liabilities items (a) and (e) in Appendix 1 of this article, namely the US dollar

balances backing the note issue and the accumulated net earnings of the Exchange Fund. The size of the accumulated net earnings (item (e)) is not disclosed on the basis that it may give rise to speculation as to the ability of the authorities to resist any runs or pressures on the Hong Kong dollar, as well as the more sensitive issue of the exact allocation of this part of the Fund amongst different currencies.

The second main component "fund" on the asset side is the accumulated fiscal reserves of the Hong Kong government. This corresponds to the liabilities in item (b) in the Appendix 1. These reserves date from a decision in 1977 to transfer to the Fund the Hong Kong dollar balances of the Treasury apart from working balances which were then, and are still, kept with commercial banks in Hong Kong. The foreign exchange balances of the Treasury had been transferred in 1976. The Fund on receiving these fiscal balances issued the Treasury with interest bearing debt certificates (see discussion in AMM Sept.-Oct. 1983 especially p. 14). The use of the Exchange Fund as a depository for the fiscal reserves has created considerable confusion in public discussions concerning both the ability of the fund to support the linked exchange rate and the potential uses of the fiscal reserves which are, of course, separate from the foreign exchange reserves.

The rest of the liabilities are the coins outstanding (item (c)) and the deposit maintained by the Hongkong Bank with the Exchange Fund under the July 1988 arrangements (item (d)).

According to the Exchange Fund Ordinance the Exchange Fund "shall be used for such purposes as the Financial Secretary thinks fit affecting directly or indirectly the exchange value of the currency of Hong Kong and for other purposes incidental thereto". This has been interpreted quite liberally in the sense that the Fund has been used to bail out commercial banks which ran into difficulties as well as to support the Hang Seng Index Futures market after the October 1987 crash. But the prime function of the Exchange Fund is to use the foreign exchange reserves in order to maintain the stability of the external value of the Hong Kong dollar.

The mechanism of the post July 1988 arrangements

The heart of the new mechanism lies in the creation of a deposit, The Account, by the Exchange Fund in favour of the Hongkong Bank, to be kept at a level no less than the net clearing balance (NCB) of the rest of the banking system at the Clearing House. The clearing balance has a direct impact on interest rates, as banks with surplus or deficit balances at the Clearing House will lend or borrow in the market in order to employ their funds or balance their books. Variations in the size of the NCB will, therefore, influence interest rates and hence the exchange rate of the Hong Kong dollar. Prior to July 1988 the central position of the Hongkong Bank in the clearing mechanism gave it a unique ability to influence the interbank market and interest rates. Although the Hongkong Bank still remains at the hub of the clearing mechanism, the Bank itself now has effectively a clearing account in the form of the Account with the Exchange Fund. The role of influencing interbank liquidity has now been taken over by the Exchange Fund. Under the rules of the July 1988 measures no interest is paid to the Bank for credit balances in the Account whereas

potentially penalty interest rates can be levied if the Account is less than the NCB or if the NCB is in debit. Since the Bank cannot control the size of the Account, when the actions of the Exchange Fund cause either the Account or the Account and the NCB to vary, the Bank, in order to avoid holding surplus balances in the Account which earn no interest or pay charges on any shortfalls, will be expected to take appropriate action in order to cause the NCB to rise or fall to match the Account. The power of the Exchange Fund lies in its ability to initiate actions which will vary the Account of the Hongkong Bank and thus cause a chain reaction which will affect interest rates in the interbank market. The Exchange Fund can do this by buying or selling Hong Kong dollars either from or to Hongkong Bank or any other bank or members of the public either through an account that the Exchange Fund maintains with the Hongkong Bank, like any other member of the private sector, or via the Account. In the latter case the action will influence the NCB whereas in the former it will not. This important distinction will be elaborated and illustrated later on in this article. Since March 1990 the Exchange Fund has an additional instrument at its disposal, namely the Exchange Fund bills. By intervening actively in the market for these bills and by effecting all the transactions through the Account, the Exchange Fund will be again able to influence interbank rates.

The simplified accounts of the Exchange Fund and of Hongkong Bank in the post July 1988 situation are shown in Table 1. It is important to note that the Exchange Fund is maintaining a normal Hong Kong dollar account with the Hongkong Bank as well as maintaining Hong Kong dollar accounts with other banks in the territory. Equally, the Treasury holds Hong Kong dollar deposits with the Hongkong Bank and other banks as part of its working balances. These balances must be distinguished from the fiscal reserves (accumulated surpluses) which the Treasury has surrendered to the Exchange Fund in return for interest bearing debt certificates.

There is, finally, one further potentially confusing detail. Under the July 1988 arrangements the Treasury may be asked to transfer some of these working balances and open an account with the Exchange Fund. This transfer can provide the Exchange Fund with additional means of operating in the money market.

To summarise the position so far:

1. The Exchange Fund holds Hong Kong dollar deposits with the Hongkong Bank and other banks as part of its portfolio of assets which include the fiscal and monetary reserves of Hong Kong.
2. The Treasury holds Hong Kong dollar deposits as part of its working balances with Hongkong Bank and other banks.
3. The Hongkong Bank holds a Hong Kong dollar account (the Account) with the Exchange Fund which must be no less than the NCB.
4. The Treasury holds a Hong Kong dollar account with the Exchange Fund. This account must be distinguished from the fiscal reserves (accumulated surpluses) which have been surrendered to the Exchange Fund.

TABLE 1

Simplified accounts of the Exchange Fund (EF) and Hongkong Bank (HKB), post July 1988

EXCHANGE FUND

Assets	Liabilities
1) Forex Assets	1) Certificates of Indebtedness
2) HK\$ deposits with:	2) Debt certificates
(a) HKB	3) Exchange Fund Bills (since March 1990)
(b) Other banks	4) Treasury Account
	5) The Account of HKB

HONGKONG BANK

Assets	Liabilities
1) Loans in HK\$ to	1) Deposits in HK\$ from
(a) Banks	(a) Banks
(b) Public	(b) Public
2) Loans in Forex	(c) Treasury
	(d) EF
3) The Account with EF	2) Deposits in forex

Use will be made of these simplified accounts in order to illustrate the mechanism of the operations of the Exchange Fund in the foreign exchange and money markets.

Suppose that pressures developed on the Hong Kong dollar and the exchange rate declined considerably below the 7.80 rate (say a depreciation to 7.82). The Exchange Fund could use the new mechanism to support the Hong Kong dollar by selling US dollars, i.e. buying Hong Kong dollars, in the open market either from the Hongkong Bank, another bank or any other nonbank member of the public. At all times the Exchange Fund is assumed to operate via the Account rather than its other ordinary account held with Hongkong Bank.

This distinction is crucial because the ordinary Hong Kong dollar account of the Exchange Fund operates in no different way than the account of any other private depositor. Purchases or sales of Hong Kong dollar balances through the Bank's ordinary Hong Kong dollar account would simply lead to a reshuffling of deposits of the Hongkong Bank with only temporary, if any, effects on interbank liquidity and interest rates. In Table 2 the Exchange Fund is shown buying Hong Kong dollars from the Hongkong Bank. For the sake of clarity and simplicity only the relevant items of the assets and liabilities are shown, with the arrows indicating increases or decreases as appropriate. When the Fund purchases Hong Kong dollars from Hongkong Bank the net effect will be a reduction of the Account. The Exchange Fund pays for the Hong Kong dollars it bought by asking the Bank to debit the Account by the appropriate amount.

TABLE 2

The Exchange Fund purchases HK\$ from HKB

EXCHANGE FUND

Assets	Liabilities
Forex Reserves (US\$) ↓	The Account of HKB, HK\$ ↓

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↓ 2) US\$ assets ↑	No change

The Hongkong Bank will need now to engineer a reduction in the NCB or an increase in the Account. The latter is improbable as it will involve the Exchange Fund reversing its operations and crediting the Account. The reduction in the NCB can be achieved by selling US for Hong Kong dollars to other banks and debiting their clearing balances. This will reduce the NCB, and by increasing the demand for Hong Kong dollars in the interbank market will push interest rates up. Alternatively the Hongkong Bank can restrict its lending activities relative to other banks and thus, over time, reduce the clearing balances potentially available to the money market. The outcome of this action will also be an increase in short term interest rates.

Similar effects on the Hong Kong dollar interest and exchange rates could be achieved by the Exchange Fund purchasing Hong Kong dollars (selling US dollars) from other banks or members of the nonbanking public. This situation is illustrated in Table 3 on page 6.

The Exchange Fund when purchasing US dollars from another bank will ask the Hongkong Bank to debit the Account by the equivalent sum, and the Hongkong Bank will similarly debit the clearing account of the bank in question. The bank, as a counterpart to these transactions, will now have a smaller Hong Kong dollar clearing balance but more US dollars. Exactly the same result will hold if the Exchange Fund bought the US dollars from a nonbank member of the public. When the cheque written by the member of the public in favour of the Exchange Fund is presented, the clearing account of the bank in question will be debited and the Exchange Fund will require the Hongkong Bank to debit an equal amount off the Account. At this juncture it is important to emphasise the difference in the results of the operations of the Exchange Fund before and after July 1988. As already alluded at earlier on in this article, when the Exchange Fund bought and sold Hong Kong dollars in the interbank market using its regular account with the Hongkong Bank, the transference of funds from the banks to the Fund caused only a temporary shortage in the interbank market. The authorities in their policy announcement in July 1988 stated the exact process by which the effects of their operations in selling US for Hong Kong dollars or borrowing Hong Kong dollars through the Hongkong Bank were rendered ineffective:

TABLE 3

The Exchange Fund purchases HK\$ from a bank or member of the public

EXCHANGE FUND

Assets	Liabilities
Forex Reserves (US\$) ↓	The Account with HKB, HK\$ ↓

HONGKONG BANK

Assets	Liabilities
The Account, HK\$ ↓	Deposits in HK\$ from (a) Banks ↓ (b) Other customers

OTHER BANKS

Assets	Liabilities
1) Deposits in HK\$ with HKB ↓ 2) Forex assets ↑	No change

"If, however, other customers of the Hongkong Bank are at the same time switching out of Hong Kong dollars into US dollars and to the extent that the Hongkong Bank covers the short US dollars position by recouping the corresponding amount from the foreign exchange market, the tightness in the interbank market will inadvertently be relieved. Other customers of the Hongkong Bank may also be taking advantage of the high Hong Kong dollar interbank interest rates available by running down Hong Kong Association of Banks - type deposits with, or drawing down best lending rate (BLR) facilities made available by, Hong Kong Bank and placing these funds with other banks in the form of deposits which attract interbank interest rates. This again will unhelpfully relieve tightness in the interbank markets."

In the situation post July 1988 these developments are not possible since any increase in the NCB, given the level of the Account, will potentially result in penalty interest rates being imposed on the Hongkong Bank or the Bank will take remedial action to lower the NCB.

The July 1988 policy arrangements included provisions for the transference of some of Treasury's working balances held in Hong Kong dollar accounts with banks to an account with the Exchange Fund. If the HK\$7.80 exchange rate is under pressure, the Exchange Fund may request the Treasury to transfer funds from accounts in the banking system to the Exchange Fund. The transaction will involve the Exchange Fund debiting the Account with the appropriate sum and crediting the Treasury's account. The Hongkong Bank in its turn will debit the clearing accounts of the banks where the Treasury held its accounts (including any balances held with the Hongkong Bank itself). The result will be that the

NCB and the Account will decline by the same amount. The resultant shortage in the interbank market will raise interest rates. The effects of the transference of Treasury funds to the Exchange Fund are shown in Table 4. The effect of reversing the transference, i.e. releasing the funds back to the deposit accounts held by the Treasury with banks will have exactly the opposite effects with additional funds being made available to the interbank market and interest rates easing.

TABLE 4

Treasury transfers funds to the Exchange Fund

EXCHANGE FUND

Assets	Liabilities
No change	1) The Account ↓ 2) Treasury Deposit ↑

HONGKONG BANK

Assets	Liabilities
1) The Account ↓ 2) All other assets	Deposits in HK\$ (a) Treasury ↓ (b) All other deposits

The Exchange Fund Bills

In his budget speech on March 1989, the Financial Secretary announced the intention of the Hong Kong Government to enhance the operations of the Exchange Fund by issuing bills which would be traded in the open market. The Financial Secretary summarised the official position as follows:

"When intervention through the New Accounting Arrangements is necessary, money market operations are carried out and the market informed. So far, these operations have taken the form of direct borrowing or lending, and the buying or selling of foreign currency. The same effect could be achieved through the buying and selling of Hong Kong dollar financial assets of acceptable quality. In other financial centres these are usually in the form of debt instruments issued by the Government. Such instruments provide a flexible, low risk, and possibly more cost effective alternative for conducting money market operations. But there is in Hong Kong lack of such instruments because there is virtually no government debt my present intention is to develop a programme for the issue of short term Exchange Fund bills. The bills would constitute direct, unsecured, unconditional and general obligations of the Government for the account of the Exchange Fund. Given that the bills would be used for monetary purposes, they would be for the account of the Exchange Fund and not for the general revenue as is the case for Treasury bills elsewhere. I must emphasise that the proceeds could not be used for the purpose of financing fiscal deficits or

public expenditures. They would be suitably invested along with other assets of the Exchange Fund and would be available only for those purposes for which the resources of the Fund may be properly used. In other words, we would not be borrowing to finance public expenditure."

The mechanism for issuing these bills is straightforward. The government auctioned the first issue on 14/3/90 and four more were made to date (11/4/90). These were part of a 13 week initial cycle of building up the amount of bills issued to approximately HK\$3 - 4 billion. The bills are allocated to bidders offering the lowest yield (highest price) in denominations not less than HK\$500,000. The allocation of bills to the successful bidders is done on a pro rata basis starting with the lowest bid yields. The secretary of Monetary Affairs has reserved the right to vary the allocation in order to ensure the widest possible diffusion of bills in the market so as to enhance their liquidity and marketability. Table 5 shows the details of the four auctions held so far. It is important to note that the issues are not all allocated at a single price (yield), although the authorities reserve the right to reject either all or part of any tender. Furthermore the authorities have so far kept in reserve approximately 10% of each issue which they then released in the market as they felt necessary or appropriate.

TABLE 5

Results of the first auctions of Hong Kong Government Exchange Fund Bills

Issue Date	Amount Applied (HK\$Mn)	Amount Allotted (HK\$Mn)	Average Accepted Yield (%)	Highest Accepted Yield (%)
14.03.90	2,014	300	8.04	8.37
21.03.90	1,748	300	8.39	8.45
29.03.90	1,430	300	8.41	8.47
05.04.90	1,089	300	9.24	9.30
11.04.90	966	300	9.31	9.36

The bills are sold only to Recognised Dealers, that is Licensed Banks and Deposit Taking Companies which have applied for and received approval by the authorities. Members of the public and non-recognised institutions can buy or sell these bills only via the Recognised Dealers which may maintain with the Monetary Affairs Branch a register and bill accounts for their clients. Fourteen of the Recognised Dealers were appointed as Market Makers. These dealers have the obligation to maintain a market for bills during normal trading hours by quoting bid and offer yields reflecting market rates prevailing at the time. The Monetary Affairs Branch in return guaranteed to the Market Makers that it will buy and sell bills in the secondary market only through them. Furthermore the Monetary Affairs Branch will:

- (1) Purchase any bills offered to it by the Market Makers at a price related to the current money market yields.

- (2) Act as last resort supplier and lender of bills to the Market Makers and enter into swap or repurchase arrangements or make additional bills available in respect to each issue up to the maximum amount specified in each tender announcement.

It is important to emphasise that all the settlements for the payments of bills bought in the weekly auctions will be made via the Account of the Hongkong Bank. If a Recognised Dealer is a licensed bank, then the Account of the Hongkong Bank will be debited and the Bank will then debit the clearing account of the licensed bank in question. If the purchaser is not a licensed bank or the bills are bought by a Dealer on behalf of a member of the public then the clearing account of the appropriate correspondent bank will be debited. On maturity the clearing accounts of the relevant institutions will be credited with the appropriate capital sums.

The Exchange Fund bills do not exist as physical securities but only as book entries in the register of the Monetary Affairs Branch. All transactions are therefore paperless and are effected through book entries.

The effects on interbank liquidity of the auction of the bills or of open market operations in the secondary market by the Exchange Fund are illustrated in Tables 6 to 10.

Table 6 shows the effect of the Hongkong Bank bidding successfully for bills. The Exchange Fund will debit the Account by the amount of bills purchased and increase the amount of bills issued by a corresponding amount.

TABLE 6

Hongkong Bank purchases bills from the Exchange Fund

EXCHANGE FUND

Assets	Liabilities
No change	1) The Account of HKB, HK\$ ↓ 2) Bills ↑

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↓ 2) Bills ↑	No change

The Account will fall below the NCB and the Hongkong Bank will need to take action in order to reduce interbank funds. If the bills were sold to any other Market Maker or Recognised Dealer, say Bank X, the effects on the position of the Exchange Fund would be identical to that shown in Table 6. Since all

transactions with non-recognised dealers or other members of the public have to go through Recognised Dealers, purchases or sales of bills by the members of public will have exactly similar effects on those effected through Recognised Dealers. The results would therefore be identical to those of Tables 6 and 7.

TABLE 7

Recognised Dealer purchases bills from the Exchange Fund

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↓	1) Deposits in HK\$ (a) Bank X ↓ (b) Other customers

In this case, the NCB falls by the same amount as the Account thus leaving the position of the Hongkong Bank unchanged. The interbank market however will experience a drain of funds. If the resultant higher interest rates caused a reverse inflow of Hong Kong dollars, then the NCB would rise relatively to the Account thus forcing the Hongkong Bank to take action.

The stated purpose of the authorities in issuing the Exchange Fund bills was to create a secondary market in which the Exchange Fund could operate. Tables 8 and 9 show the effects of the Exchange Fund buying already issued bills from Hongkong Bank or from another Recognised Dealer (or through a Dealer from a member of the public) respectively.

TABLE 8

The Exchange Fund purchases bills from Hongkong Bank

EXCHANGE FUND

Assets	Liabilities
No change	1) The Account HK\$ ↑ 2) Bills ↓

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↑ 2) Bills ↓	No change

When the Exchange Fund purchases bills from the Hongkong Bank it will pay for these by crediting the Account. The amount of bills appearing as a liability of the Fund will, of course, decrease as the Fund by purchasing them effectively cancels them or redeems them. The overall effect is that the Account will now be greater than the NCB thus necessitating appropriate action on the part of the Hongkong Bank in order to increase the amount of funds in the interbank market. Exactly the opposite results would hold if the Exchange Fund had sold bills to Hongkong Bank (the case illustrated in Table 6).

Finally Table 9 shows the results of the Exchange Fund buying bills from a Recognised Dealer or through the Dealer from a member of the public. The effects on the account of the Hongkong Bank are shown in Table 9.

TABLE 9

The Exchange Fund buys bill from a Recognised Dealer

EXCHANGE FUND

Assets	Liabilities
No change	1) The Account, HK\$ ↑ 2) Bills ↓

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↑	Deposits in HK\$ from (a) Recognised Dealer or correspondent bank ↑ (b) Other customers

The result here is that the Account and the NCB will increase by the same amount leaving the position of the Hongkong Bank unchanged, but increasing the funds available in the interbank market. The Exchange Fund can then decide whether to allow further falls in interbank interest rates as the credit conditions become easier. Exactly the reverse effects hold if the Exchange Fund had sold bills to a Recognised Dealer (the case is illustrated in Table 7).

The mechanism of the intervention outlined indicates that the Exchange Fund has now an additional instrument at its disposal in order to influence the exchange rates. The basic difference between the operations of the Exchange Fund before March 1990 (when the first issue of the bills was made), and since March 1990, is that prior to March the Fund's operation involved the purchase or sale of Hong Kong for US dollars. Since the bills are Hong Kong dollar denominated these operations can be viewed as primarily "domestically oriented", although the end result is exactly the same, maintaining the US-HK dollar link through influencing the interbank interest rates.

The relatively small amount of bills issued to date (about HK\$1.5 billion) must be viewed as part of a learning process both for the Fund and for the market. Hence comparisons of the weekly tender of HK\$300 million to the total monthly outstanding interbank loans extended by banks to authorised institutions in Hong Kong (end of February 1990, HK\$193 billion), are inappropriate. When the full cycle of nearly HK\$4 billion issues is completed, there is nothing to stop the authorities increasing the amounts put out to tender. Also the potential leverage effects of the open market operations of the authorities is considerable as movements of the Account are equivalent to changes in the monetary base (see AMM May-June 1989). However there are still a number of problems and issues to be ironed out in order to increase the liquidity and the marketability of the bills. Market participants, for example, were concerned over the exact nature of the sovereign risk (or absence of it) associated with the bills as they are not issued by the Hong Kong Government but "for the account of the Exchange Fund". There were additional questions over the tax treatment of the costs associated with the financing of the bills. But perhaps the most justified concern was over the liquidity of the market. Given the relatively small amount of bills issued, there were fears that the bills would have ended up in the books of major market participants and kept there till maturity. There is, however, some evidence that a secondary market is slowly developing. Indirect evidence of this is the narrowing of the HIBOR-Bills yield differentials.

Before the first auction there was considerable confusion as to what rate the offers should be pitched at. It is interesting to note, therefore, that for the initial issue the average accepted yield of 8.04% (see Table 5) was well below the average interbank rate for the day which stood at 9% (96 basis points gap). During the second auction the gap had declined to 73 basis points. The gap for the third, fourth and fifth issues stood at 27, 26 and 28 basis points respectively. This is an encouraging development as far as widening the appeal and therefore the marketability of the bills is concerned, particularly for bidders whose sources of financing their bill holdings are interbank rate related.

Appraisal of the Policies Pursued and Conclusions

Table 10, and Charts 1 to 3 summarise the operations of the Exchange Fund in the money markets since July 1988. The Fund intervened fifteen times, two of these to relieve overnight temporary pressures in the market, reversing its operations immediately. On June 5th 1989 the intervention assisted indirectly the Bank of China during the crisis over the Tiananmen massacre by injecting HK\$194 ml. The injection was then withdrawn in August. The relatively small withdrawals during March 1990 related to fine tuning of the money market by the authorities following the two first auctions of Exchange Fund bills.

In general most of the Fund's interventions have been associated with periods of divergence of the exchange rate from the HK\$7.80 parity, except where otherwise indicated. Exceptionally, during the June 1989 crisis, the Hong Kong dollar was not under pressure because of US dollar sales by members of the Bank of China group facing large Hong Kong dollar deposit withdrawals by protesting members of the Hong Kong public.

As previous surveys in this journal have shown the operations of the linked foreign exchange system in Hong Kong has withstood well both devaluation and

revaluation pressures as well as rapid changes in the structure of the Hong Kong dollar markets for deposits and loans (AMM July-August 1988, May-June 1989 and Jan.-Feb. 1990).

TABLE 10

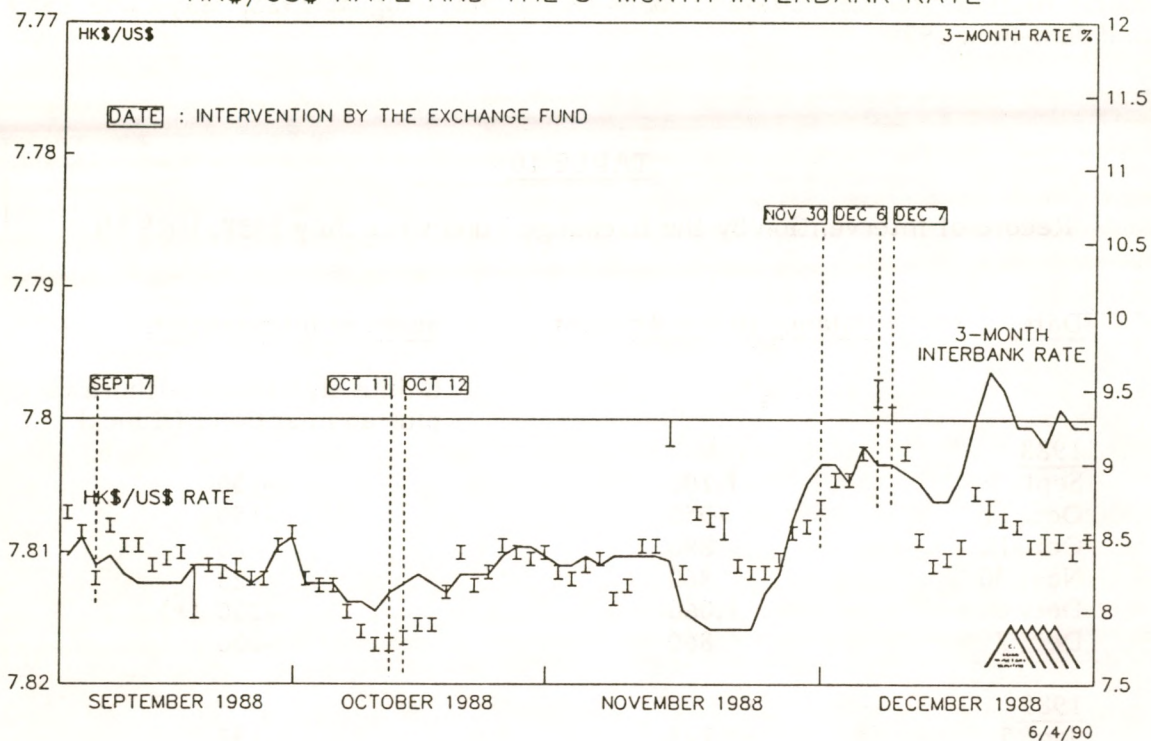
Record of Intervention by the Exchange Fund since July 1988, HK\$ Ml.

<u>Date</u>	<u>Balance in the Account</u>	<u>Scale of Intervention</u>
		(Minus signifies a withdrawals, plus an injection of funds)
<u>1988</u>		
Sept. 7	1,100	-150
Oct. 11	950	-150
Oct. 12	880	-70
Nov. 30	860	-20
Dec. 6	1,060	+200 (*)
Dec. 7	860	-200
<u>1989</u>		
Jan. 5	728	-132
Jun. 5	922	+194
Jun. 12	923	+1
Aug. 7	728	-195
Dec. 30	978	+250 (*)
<u>1990</u>		
Jan. 2	728	-250
Jan. 5	528	-200
Mar. 14	524	-4 (**)
Mar. 21	510	-14 (**)

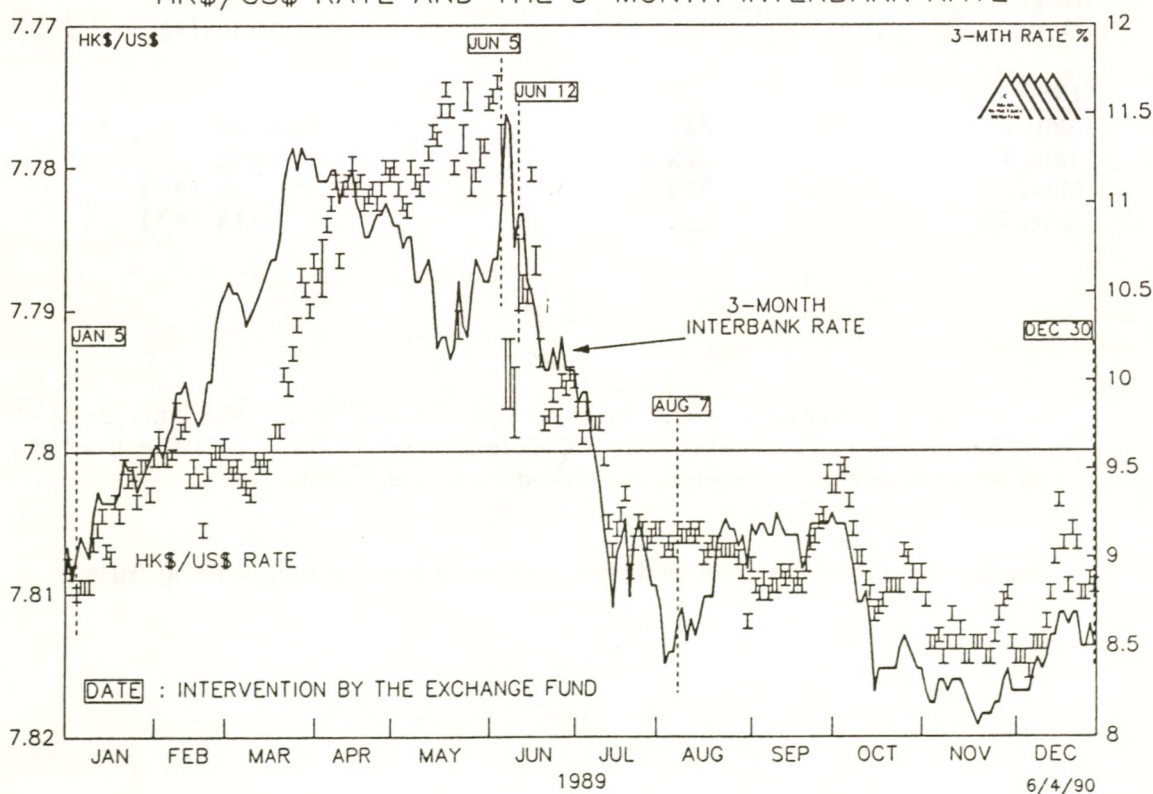
(*) Overnight assistance. The intervention on 6-7 Dec. 1988 and Dec. 30 1989-Jan. 2 1990 covered the HK Telecom share issue and the liquidity shortages over the long holiday weekend respectively.

(**) Interventions associated with the issuing of the Exchange Fund Bills.

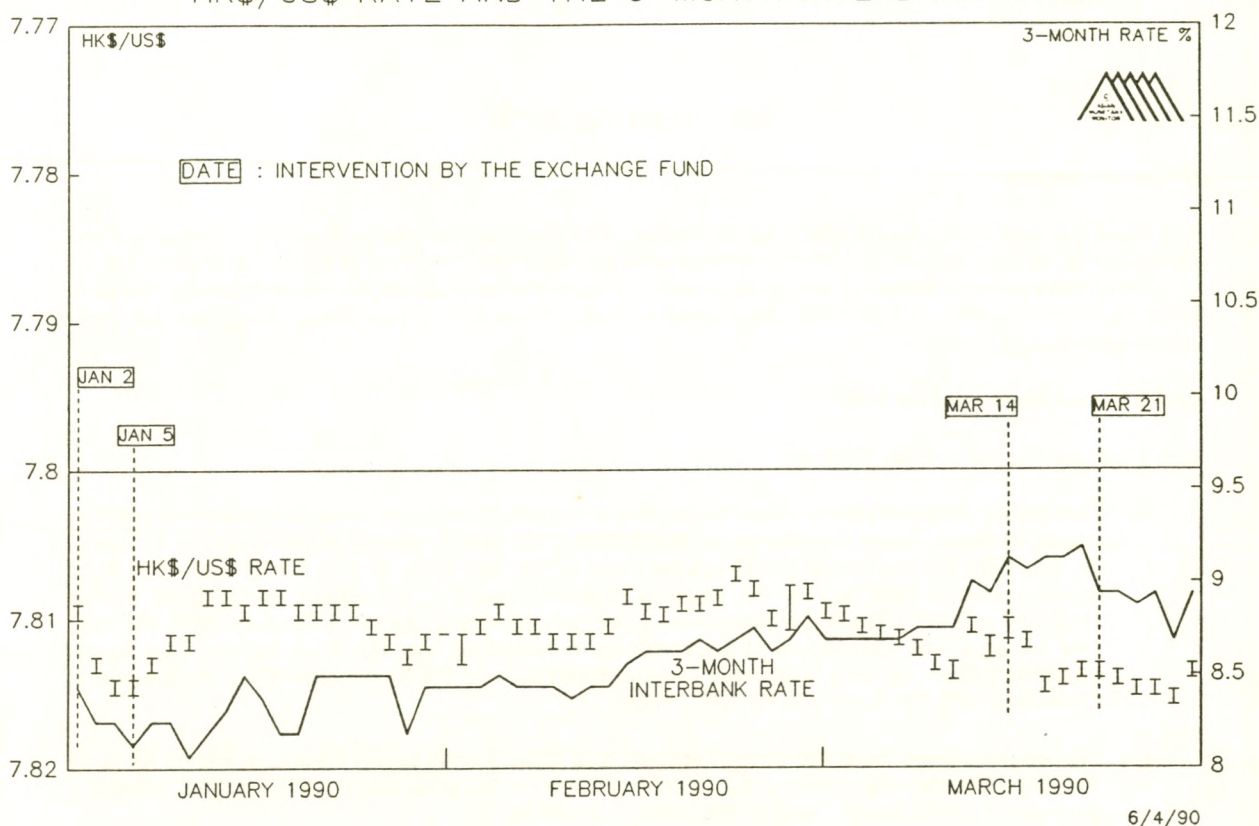
HONG KONG: CHART 1
HK\$/US\$ RATE AND THE 3-MONTH INTERBANK RATE



HONG KONG: CHART 2
HK\$/US\$ RATE AND THE 3-MONTH INTERBANK RATE



HONG KONG: CHART 3
HK\$/US\$ RATE AND THE 3-MONTH INTERBANK RATE



Since July 1988 the stance of the authorities in the market has been one of caution, and the interventions have been moderate and measured. It is perhaps significant that in terms of size the biggest interventions were, in general, purely overnight incidents associated with seasonal or specific market events as opposed to market crises. The success, in terms of the oversubscription and the narrowing yield gaps of the first five bill auctions, augurs well for the development of an active secondary market which will enhance the ability of the authorities to use it for influencing the level of short term interest rates and hence of the HK-US dollar exchange rate.

THE EXCHANGE FUND

Origin and purpose

The Fund was constituted by the Currency Ordinance of 1935 which was later renamed the Exchange Fund Ordinance (Cap. 66). Section 3(1) of the Ordinance as amended specifies that the Fund "shall be under the control of the Financial Secretary and shall be used for such purposes as the Financial Secretary thinks fit affecting, either directly or indirectly, the exchange value of the currency of Hong Kong and for other purposes incidental thereto."

Liabilities and Reserves of the Fund

2. There are five main items. These are:

- (a) Certificates of Indebtedness issued to the two note-issuing banks as cover for banknotes lawfully issued by them. These Certificates of Indebtedness are issued against payment to the Financial Secretary for the account of the Exchange Fund of the face value of such Certificates. Under the linked exchange rate system, the payment is denominated in US dollars at the fixed rate of HK\$7.80 to US\$1. These Certificates are non-interest bearing. As at 31 January 1990, the total face value of the Certificates of Indebtedness outstanding was HK\$45.9 billion. This figure, however, reflects the very large issue of bank notes around the Lunar New Year. At the end of December 1989, the figure was HK\$37.2 billion.
- (b) Money transferred from the general revenue and other Funds to the Exchange Fund. As at 31 January 1990, the total outstanding amount of money transferred was HK\$55.1 billion. Interest is paid out of the Exchange Fund on the money transferred.
- (c) All government coins outstanding. As at 31 January 1990, these amounted to HK\$2.2 billion.
- (d) Balance of the banking system, in the form of the balance in the account maintained at the Exchange Fund by The Hongkong and Shanghai Banking Corporation Limited, as Management Bank of the Clearing House of the Hong Kong Association of Banks. This was introduced in July 1988 through the establishment of the Accounting Arrangements. On 31 January 1990, the closing balance in the account was \$528 million.
- (e) Accumulated net earnings of the Exchange Fund. This amount is not disclosed.

Assets of the Fund

3. The Fund is held in assets denominated in the following currencies: Canadian dollars, Deutsche marks, Dutch guilders, French francs, Hong Kong dollars, Japanese yen, Pounds sterling, Swiss francs and US dollars. Part of the Fund is placed on interest bearing deposits with first class banks in Hong Kong and overseas, and part is invested in a variety of financial instruments, including bonds, notes and treasury bills. Only instruments which have good marketability and which are issued by or guaranteed by governments with high credit standing are acquired.

This is Annex A of the Information Memorandum on the Exchange Fund Bills Programme for Tender on a Bid-Yield Basis issued by the Secretary of Monetary Affairs, February 1990.

APPENDIX 2

An alternative presentation of the Account arrangements

The following is an alternative method of viewing the way in which the Account of the Hongkong Bank with the Exchange Fund may operate. This alternative approach is presented here as it may well reflect the internal book keeping arrangements between the Hongkong Bank and the Exchange Fund. There is no suggestion that this is in fact what actually happens, as the authorities have not released any specific details. In any case, as it will be shown, this alternative presentation in no way changes the conclusions presented in the main body of this article.

The creation of the Account can be deemed to generate an equivalent asset for the Exchange Fund and a liability for Hongkong Bank. These are shown in Table A.

TABLE A

The creation of the Account

EXCHANGE FUND

Assets	Liabilities
1) Forex	1) The Account
2) HK\$ Deposits with HKB: (a) HKB (existing)	2) Other liabilities
(b) HKB (counterpart)	

HONGKONG BANK

Assets	Liabilities
1) The Account	1) HK\$ Deposits
2) Other assets	(a) EF (existing)
	(b) EF (counterpart)
	2) Other liabilities

The Exchange Fund holds Hong Kong dollar deposits as a part of its portfolio. These are shown as items 2(a) and 1(a) in the accounts of the Fund and of the Bank respectively. The creation of the Account also generates another asset to match this new liability of the Fund, a Hong Kong dollar deposit with Hongkong Bank, here called "counterpart" to distinguish it from the Exchange Fund's existing Hong Kong dollar deposits with the Bank. Equally, the "counterpart" deposit appears as a liability for the Hongkong Bank.

Table B shows the operations described in Table 2 in the main text, using this alternative format of analysis. The purchases of Hong Kong dollars by the Exchange Fund from Hongkong Bank will cause the Account to be debited. This will result in the normal Hong Kong dollar deposit account of the Exchange Fund

with Hongkong Bank being credited with the proceeds of the sale whilst the "counterpart" account will be debited to reflect the debit of the Account. The foreign exchange assets of the Funds will fall reflecting the US dollar sales. Similar changes are made in the accounts of the Hongkong Bank reflecting the acquisition of US dollars, the debiting of the Account and the appropriate adjustments in the Hong Kong dollar and counterpart deposits of the Exchange Fund with the Bank. The result, as indicated, is exactly the same, namely the Account falls below the NCB necessitating contractionary action on the part of the Hongkong Bank.

TABLE 2

EXCHANGE FUND

Assets	Liabilities
1) Forex Assets ↓ 2) HK\$ deposits with (a) HKB ↑ (b) HKB (counterpart) ↓	1) The Account, HK\$ ↓ 2) Other liabilities

HONGKONG BANK

Assets	Liabilities
1) The Account, HK\$ ↓ 2) Forex Assets ↑	1) Deposits in HK\$ from (a) EF (existing) ↑ (b) EF (counterpart) ↓

This analysis can, of course, be applied to all the cases illustrated in the Tables in the main article leaving the conclusions unchanged.

THAILAND

HIGHER INTEREST RATES ARE UNLIKELY TO CURB INFLATION

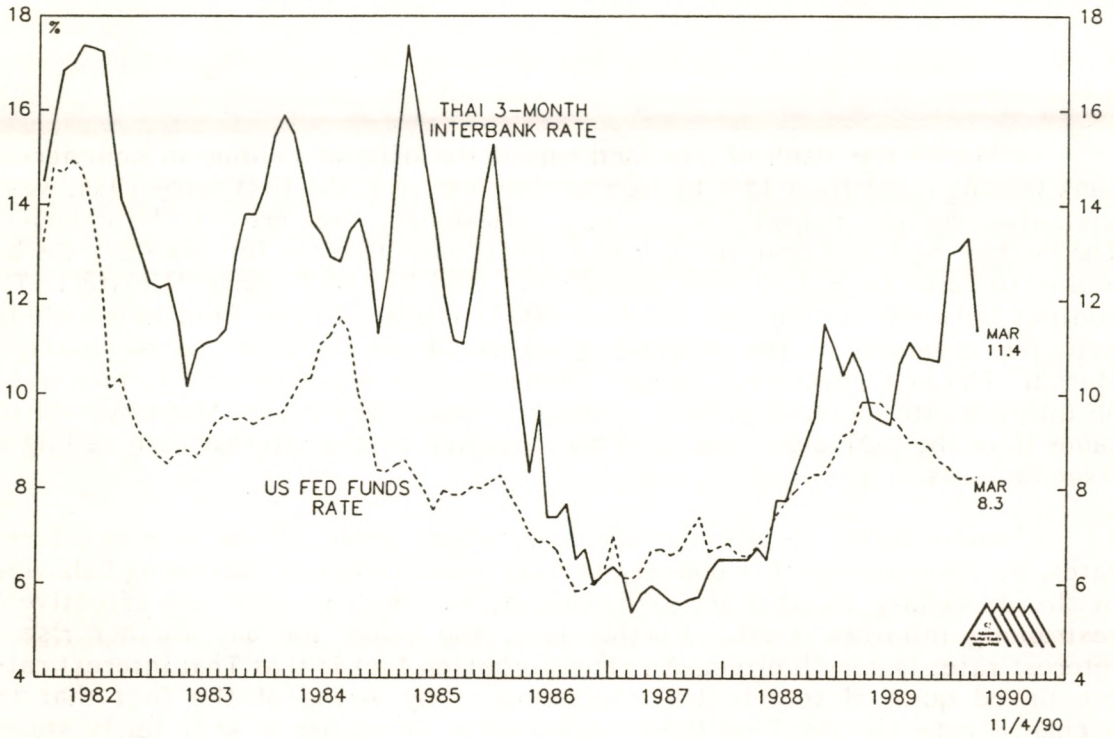
In March the Bank of Thailand raised the official ceiling on commercial bank lending rates from 15% to 16.5%. The increase, the first since 1984, was a somewhat delayed response to growing inflationary pressures in the economy. The central bank had been seeking an interest rate increase for some months but action to raise rates had been strongly resisted by the Finance Minister. The conflict between the Bank of Thailand (BOT) and Ministry of Finance concluded with the dismissal of the previous governor of the BOT at the beginning of March. The new governor, Chavalit Thananchanan, was then able to implement an interest rate increase without opposition from the Finance Ministry. At the same time the BOT also announced the abolition of the interest rate ceiling on fixed deposits.

Unfortunately, despite the acrimony which preceded the rise in interest rates, the increase itself is unlikely to have much effect on borrowing behaviour in the developing inflationary environment, and will be even less effective in restraining inflation itself. Furthermore, the scope for any further rise in interest rates is very limited. An often forgotten fact is that Thai interest rates are linked quite closely to US interest rates by virtue of the fact that the exchange rate for the Thai Baht vis-a-vis the US dollar is kept fairly stable. Given that Thailand is a fairly open economy (in which large borrowers have access to US dollar loans), there is only limited scope for Thai interest rates to diverge from US interest rates in the absence of a fundamental change in exchange rate policy.

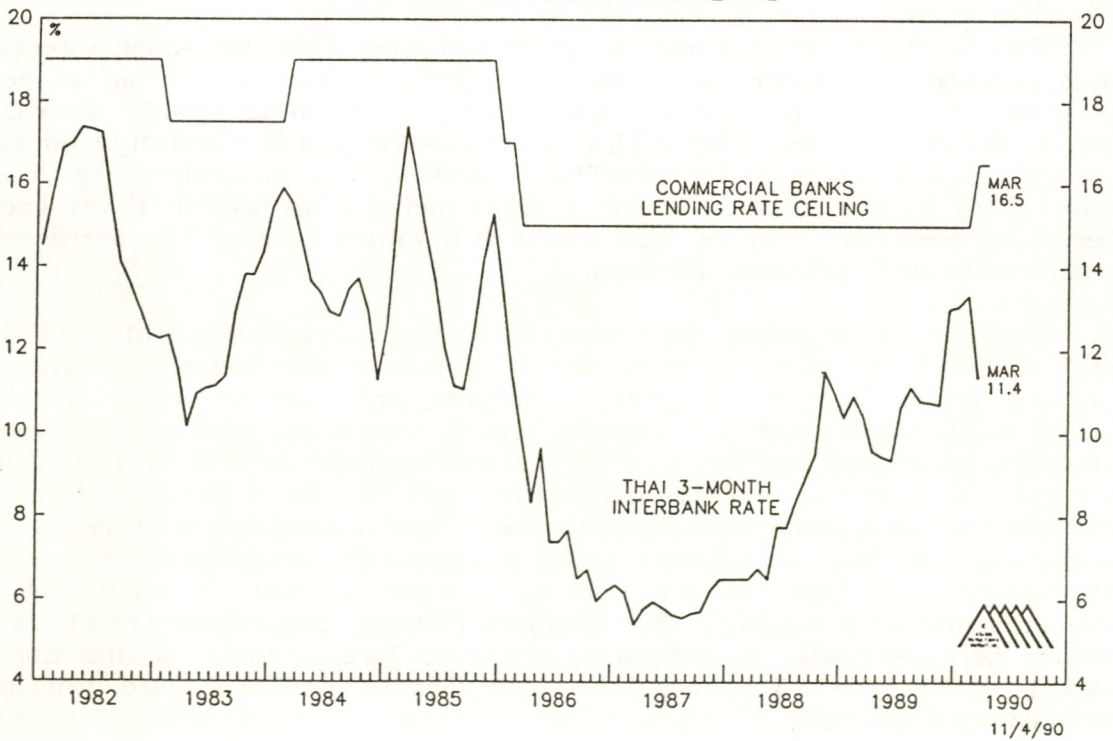
This is illustrated in Chart 1, which compares Thai inter-bank interest rates with the key US inter-bank rate, the Federal Funds rate. As can be seen from the chart, Thai inter-bank rates have tended to move broadly with US inter-bank rates. In periods when Thai rates have diverged significantly from US interest rates, it has generally been Thai rates which have been the higher (e.g. in late 1983, early 1985 and the end of 1985), and this has been at times when there have been fears that the Baht would be devalued (causing Thai borrowers to become hesitant to borrow US dollars).

A second factor potentially causing divergences between Thai rates and US interest rates is the existence of the ceilings on bank deposit and lending rates in Thailand. As free market interest rates (including inter-bank rates) approach the ceiling levels there exists the potential for a temporary spike in inter-bank interest rates as bank liquidity tightens severely (because demand for bank loans at regulated lower than market interest rates will tend to be strong, but banks will tend to lose deposits because of regulated 'low' deposit rates). This second factor may have been an influence in the sharp rise in inter-bank interest rates late last year (see Chart 2). Additionally, it is possible that the broadening of Thailand's economic expansion has stimulated strong demand for credit from smaller borrowers who do not have access to foreign banks or the Euro-markets. As Chart 3 shows, bank loan demand has been strengthening continuously since 1987.

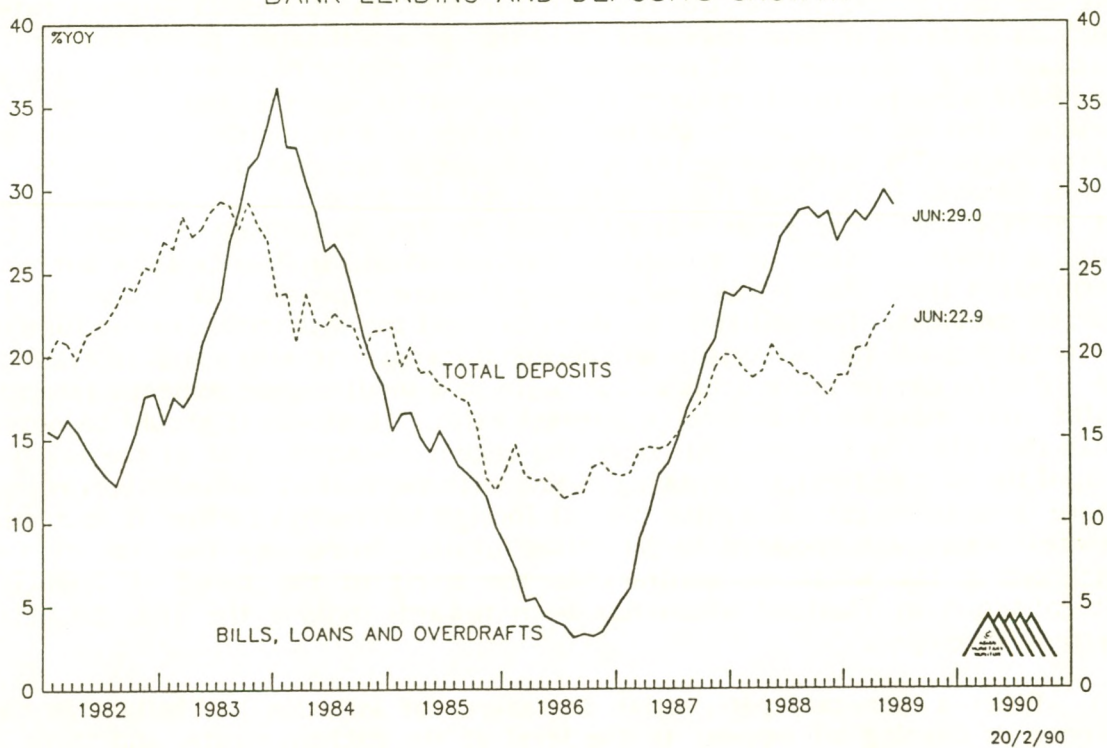
THAILAND: CHART 1
INTEREST RATES IN THAILAND VS THE US



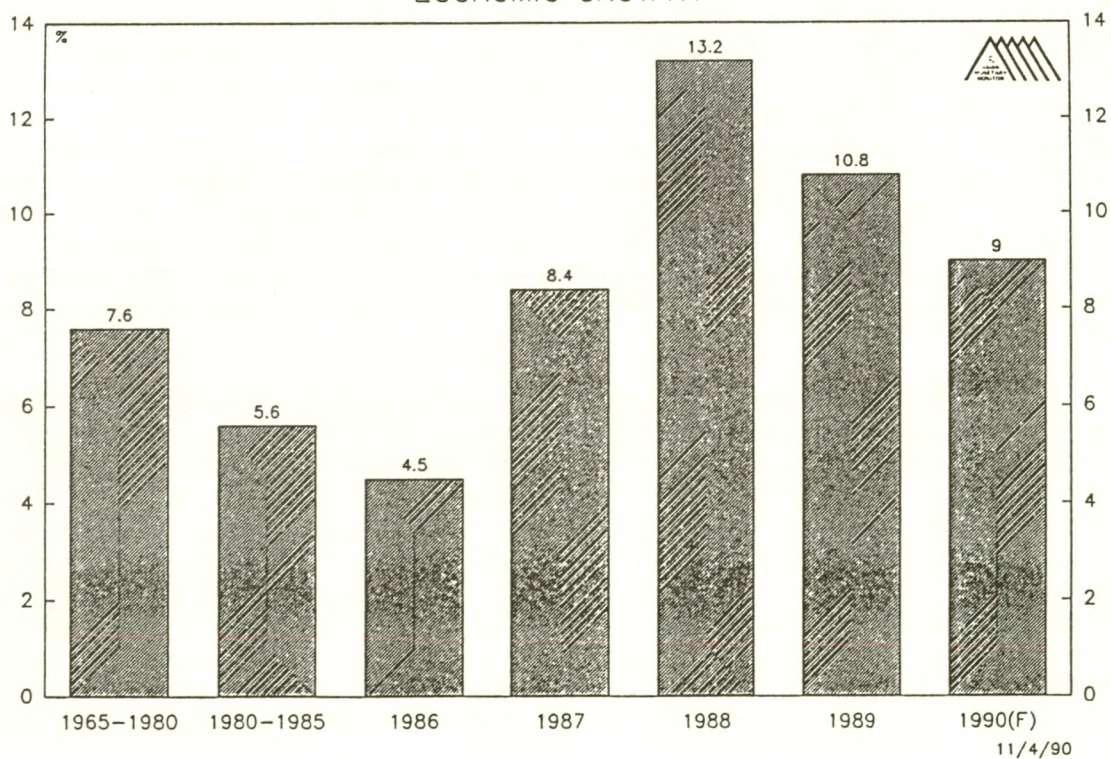
THAILAND: CHART 2
INTEREST RATES IN THAILAND



THAILAND: CHART 3
BANK LENDING AND DEPOSITS GROWTH



THAILAND: CHART 4
ECONOMIC GROWTH

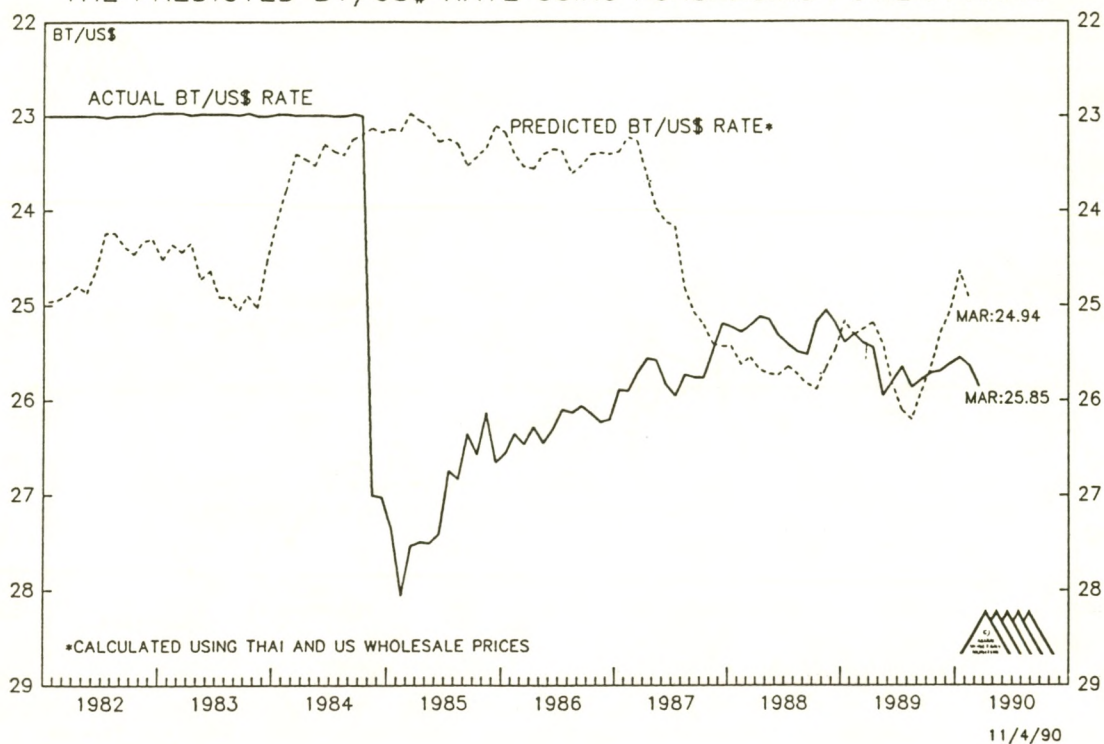


Nevertheless, notwithstanding the influence of domestic credit demand, marked divergences in the trends of Thai interest rates and US interest rates such as occurred in late 1989 and early this year ultimately prove temporary because large borrowers and depositors have the choice between the US dollar and Baht markets. In this respect, it is important to note that the March hike in ceiling rates was preceded by the re-introduction of a withholding tax on foreign borrowings. The withholding tax is a 10% tax on interest income payable on foreign loans. In the past the government has for periods exempted borrowings of greater than three years maturity from the tax as a means of encouraging capital inflows. Such an exemption was introduced in March 1989 but was terminated from March this year, making it more expensive for companies to borrow overseas. The ability to put on or take off the withholding tax on foreign borrowings gives the authorities an additional instrument with which to attempt to influence capital movements and insulate to a small degree domestic interest rates from movements in foreign interest rates. However, it should be noted that the effect is limited. Although the recent re-introduction of the tax has raised the cost of foreign borrowing in line with the cost of domestic borrowing, there is no scope for raising the cost of foreign borrowings further if domestic interest rates are required to be raised again. Increasing the size of the withholding tax would be contrary to the spirit of the trend of financial liberalisation in Thailand which has been towards making the Thai financial system more open.

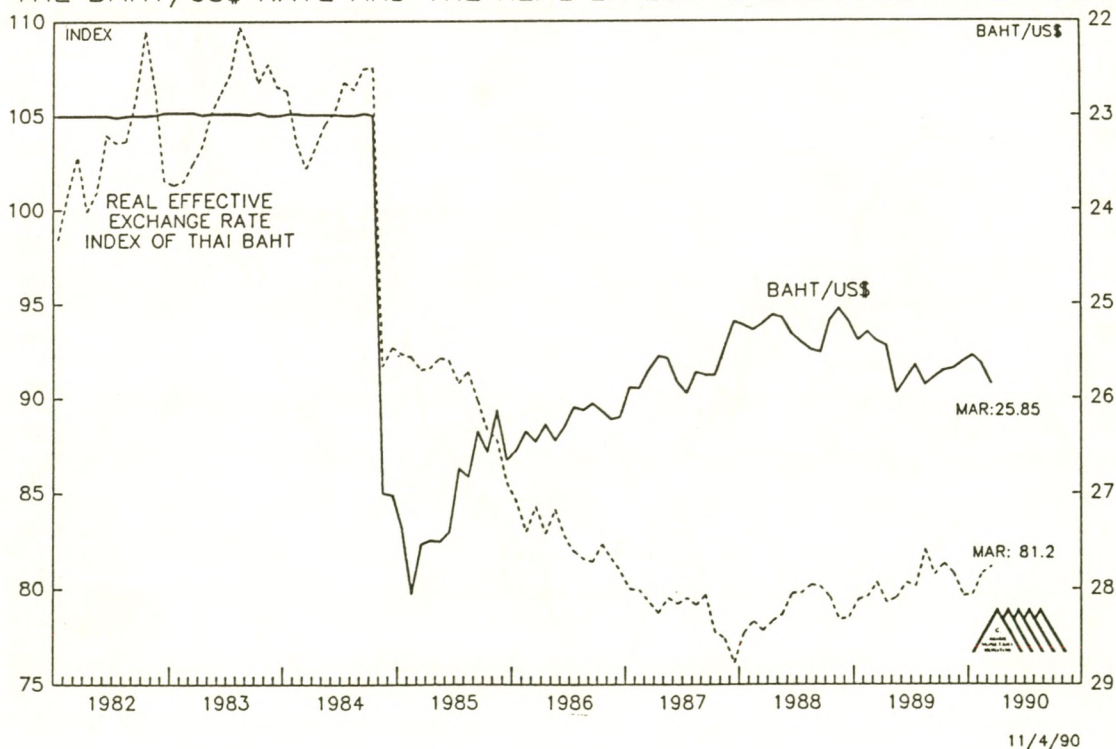
From a monetary perspective the source of inflation in Thailand is the economy's ongoing adjustment to the level of the exchange rate, and there is therefore little that can be done about inflation without a fundamental shift in exchange rate policy. There are a number of aspects to this adjustment process. Firstly, beginning in 1987 Thailand appears to have shifted to a higher secular growth path as the economy has achieved an industrial 'take-off'. As Chart 4 shows, for the last four consecutive years the economy has achieved a significantly higher real growth rate than during the early 1980s or even during the 1960s and 1970s. Although there might be a cyclical element in Thailand's recent rapid growth, the change in the structure of the economy away from agriculture and towards manufacturing suggests that it is likely that Thailand's natural long-term growth rate has risen. Such a relatively sudden rise in the growth rate would tend to imply, if anything, a temporary rise in the real exchange rate (because of inflows of capital seeking the investment returns afforded by improved growth). However, as Charts 5 and 6 show, the Baht has been, and remains, somewhat under-valued i.e. the real exchange rate is 'too low'.

Chart 5 depicts the actual Baht/US dollar rate compared to the rate predicted by purchasing power parity calculations, using the average of the 1980s as the base period. The November 1984 devaluation of the Baht (of 14.8%) left the Thai currency significantly undervalued versus the US dollar. This undervaluation was removed during 1987 as a result of rising inflation in Thailand (which lowered the purchasing power parity value of the Baht) and some managed appreciation of the Baht, but as at early 1990 the Baht is again slightly undervalued by this measure. On the basis of the real effective exchange rate (which measures the trade-weighted value of the Baht relative to the value suggested by purchasing power parity considerations) Chart 6 shows that the Baht is far more undervalued. On this basis there appeared no tendency for the

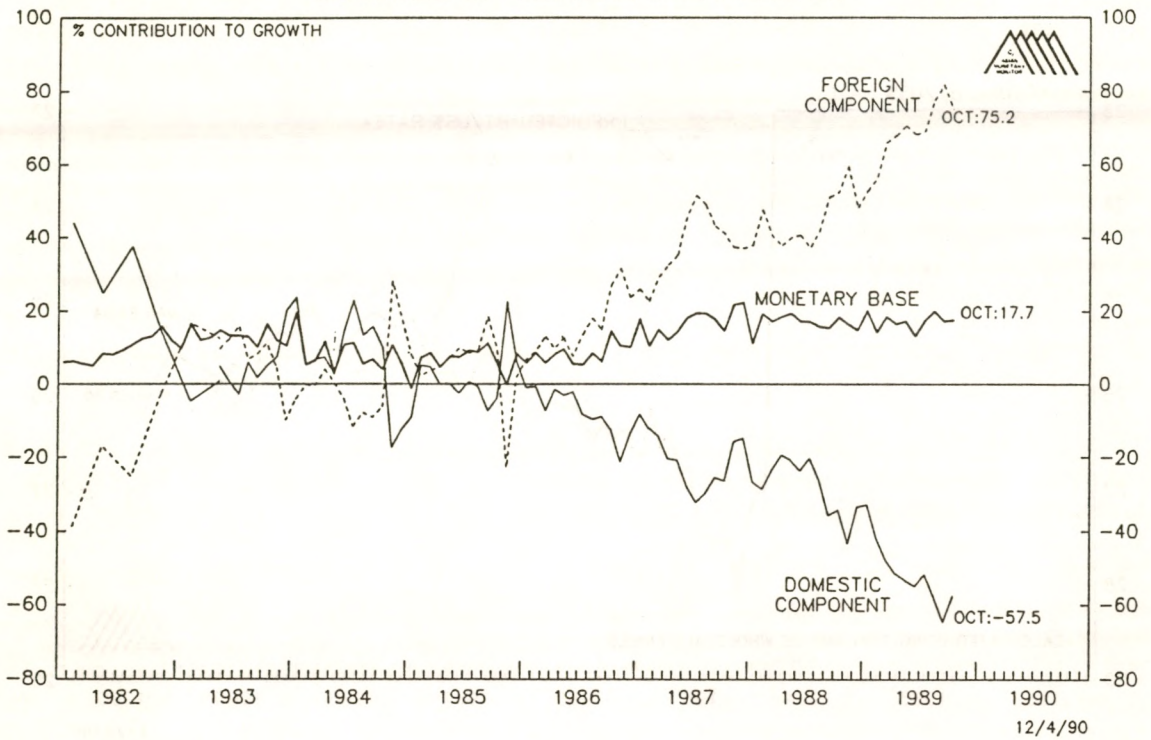
THAILAND: CHART 5
THE PREDICTED BT/US\$ RATE USING PURCHASING POWER PARITY



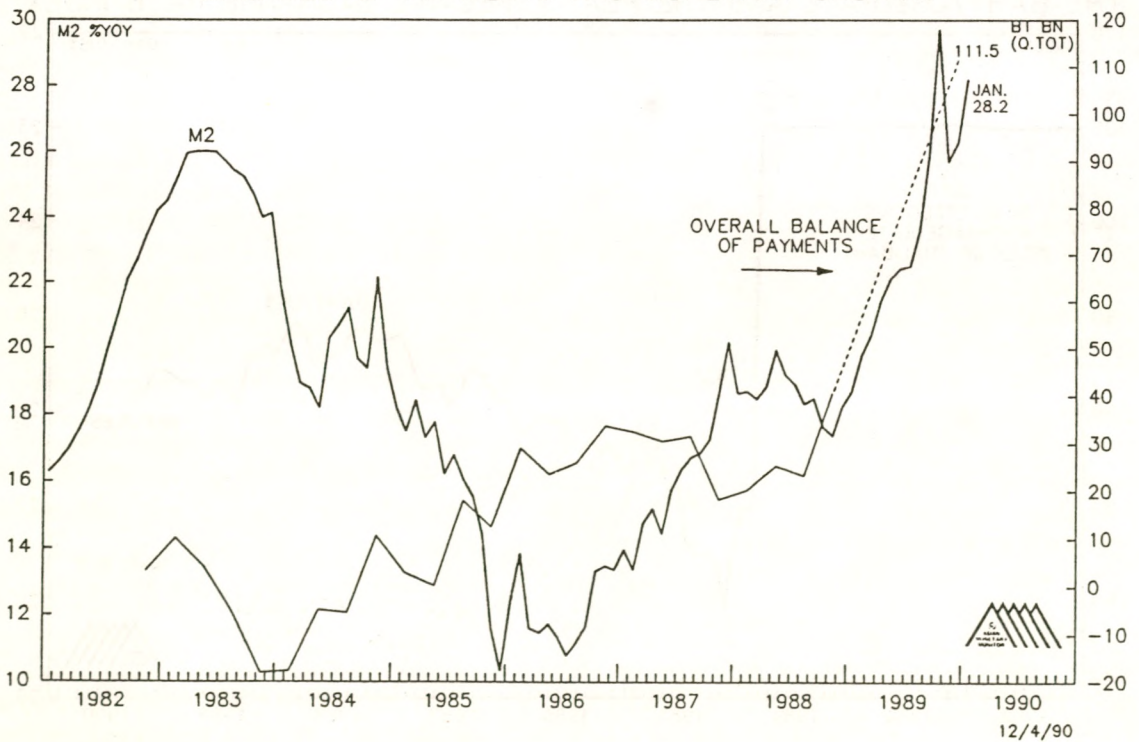
THAILAND: CHART 6
THE BAHT/US\$ RATE AND THE REAL EFFECTIVE EXCHANGE RATE INDEX



THAILAND: CHART 7
SOURCES OF MONETARY EXPANSION



THAILAND: CHART 8
BALANCE OF PAYMENTS AND MONETARY GROWTH



Thai currency to become less undervalued during 1987. Instead the real effective exchange rate continued to fall because, although the real exchange rate rose against the dollar, it fell sharply against the yen and European currencies. The real effective exchange rate has barely risen since 1987 and remains about 20% below the average levels of the early 1980s.

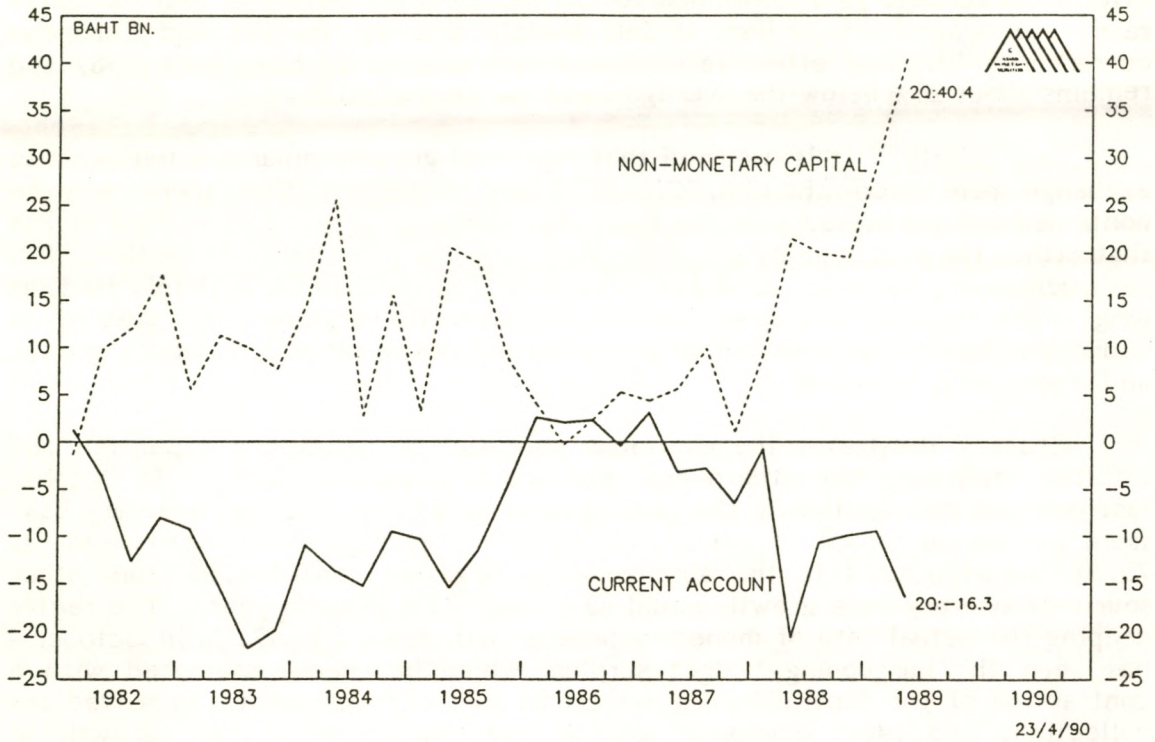
Particularly if it is assumed that high real growth imparts a tendency to exchange rate over-valuation, Charts 5 and 6 suggest that there will be continued upward pressure on the Baht real exchange rate. This in turn means that either the exchange rate for the Baht must be re-valued or else there will be a continuing tendency to higher inflation. The mechanism is simply that, as long as the Baht is 'held down', balance of payments surpluses generated by an undervalued exchange rate and large capital inflows result in high money growth and, eventually, inflation.

Chart 7 illustrates the enormous potential for monetary expansion and inflation stemming from the overall balance of payments surplus. In October last year the contribution to the year-on-year growth rate of the monetary base from the annual growth of the central bank's net foreign assets was running at 75.2% (meaning that in the absence of a negative contribution from other sources monetary base growth would have been 75% year-on-year). The factor keeping the actual rate of monetary base growth down - to 17.7% in October - has been the burgeoning budget surplus, which has been associated with a contraction of the central bank's net credit to the government. Improved tax collections and rapid economic growth have meant very rapid growth of government revenues while the government has been successful in containing expenditures. The consequent large treasury surplus, which has emerged since the beginning of 1988, has been used to redeem government debt, particularly government debt held by the Bank of Thailand, therefore contributing negatively to monetary base growth.

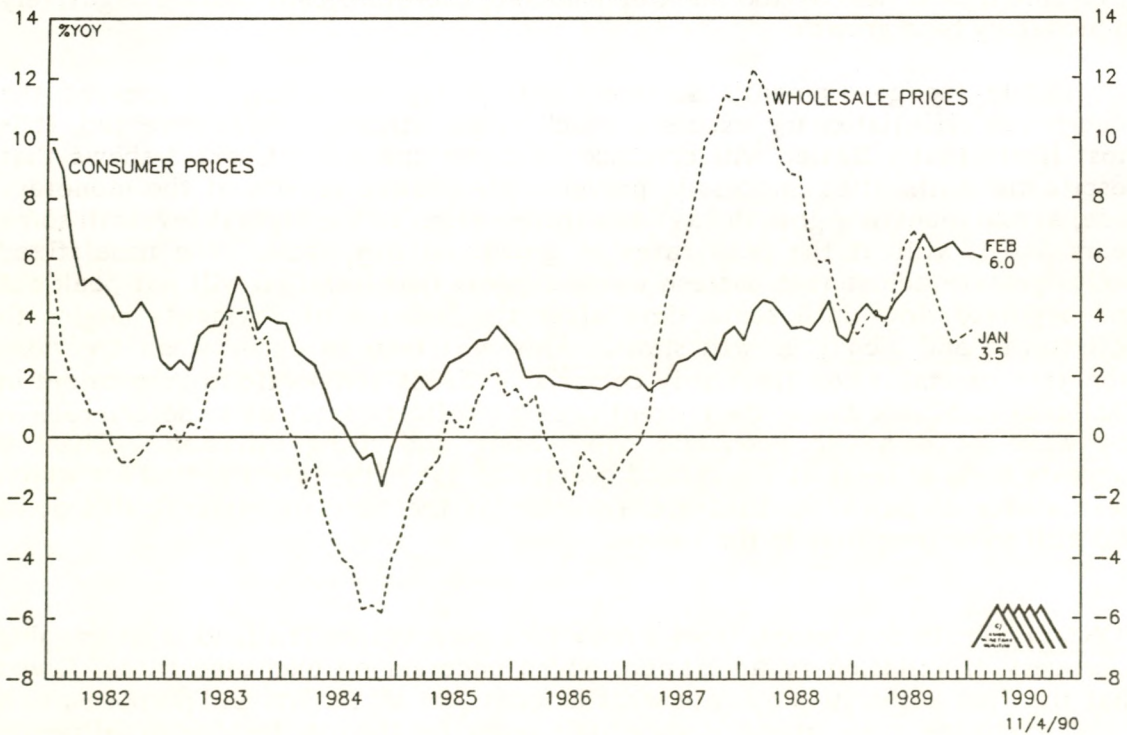
While the government's austere fiscal policy could help to prevent the occurrence of inflationary excesses which might otherwise have emerged, it is most likely that inflation will continue to creep upwards. Chart 8 shows that despite the authorities' success in preventing explosive growth of the monetary base, actual monetary growth has nevertheless risen to the highest levels in some years and is still at the peak rates of growth in this cycle. The usual fixed exchange rate adjustment pattern would suggest that inflation will not peak out and begin to slow until some time after the balance of payments begins to deteriorate and money growth slows. This will tend to occur when the non-monetary capital inflow (primarily comprising direct and portfolio investment in Thailand) stabilises and as the current account deficit continues to deteriorate in the wake of domestic economic overheating and rising inflation. Chart 9 suggests that, at least at the second quarter of 1989 (the latest period for which full balance of payments data are available at the time of writing), this point was still some long time in the future.

FORECAST: In conclusion, from a monetary perspective Thailand is undergoing a process of inflationary adjustment to an undervalued exchange rate. Given that the Thai authorities operate what amounts, to all intents and purposes, to a fixed exchange rate, there is very little scope for them to be able to influence

THAILAND: CHART 9
BALANCE OF PAYMENTS

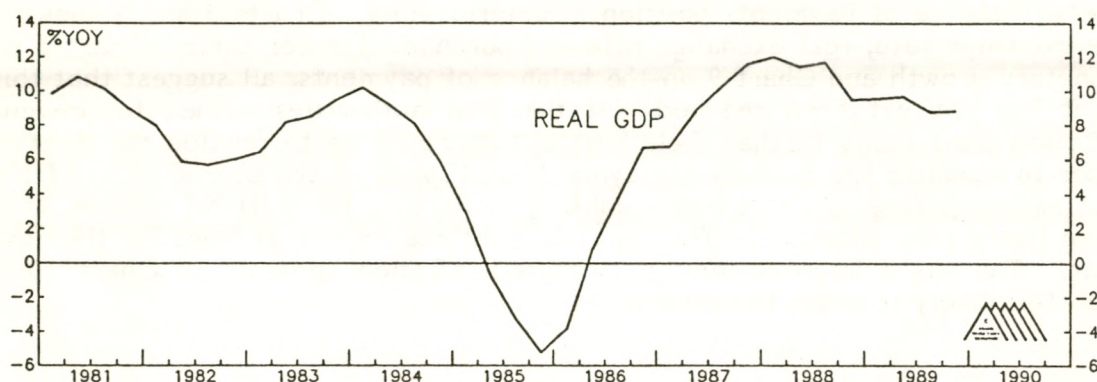


THAILAND: CHART 10
CONSUMER AND WHOLESALE PRICES



monetary conditions or control inflation via domestic interest rate policy. Instead inflation is likely to continue to rise until the exchange rate becomes fairly valued or perhaps somewhat over-valued at its current rate, and the overall balance of payments position is deteriorating. Charts 5 and 6 showing the exchange rate, real exchange rate and purchasing power parity, Chart 8 on monetary growth and Chart 9 on the balance of payments, all suggest that this point has not yet been reached. If the Thai authorities wished to prevent inflation from rising further their best option would be to revalue the Baht in order to stabilise the balance of payments and speed up the appreciation of the real exchange rate. As this seems unlikely to happen, for political reasons, it is more likely that inflation in Thailand will continue to rise at least for the next year. The slight improvement in measured inflation apparent in Chart 10 is therefore likely to prove temporary.

SINGAPORE: AT THE PEAK OF THE BUSINESS CYCLE

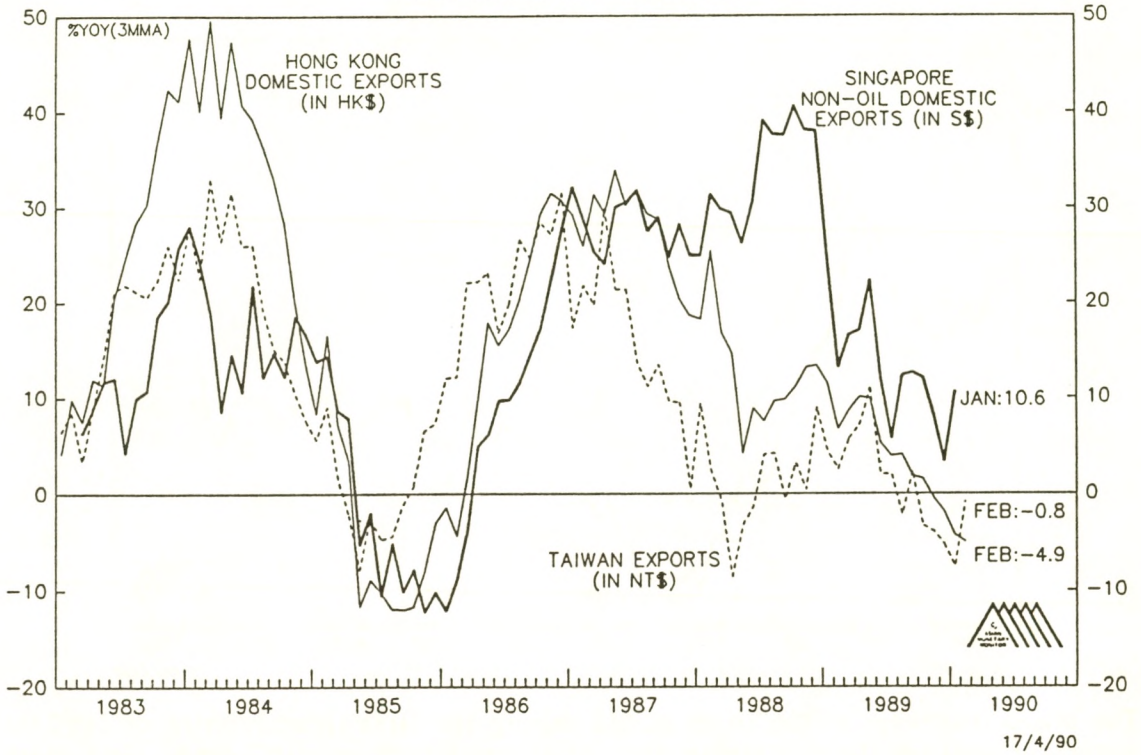


The Singapore economy grew by 9.2% in 1989, a significantly higher growth rate than that achieved by the other Asian newly industrialised countries (NICs) and the third year in succession that growth exceeded Singapore's long-run average growth rate (of 7%-8%). The indications now are that Singapore's business cycle may soon be turning down.

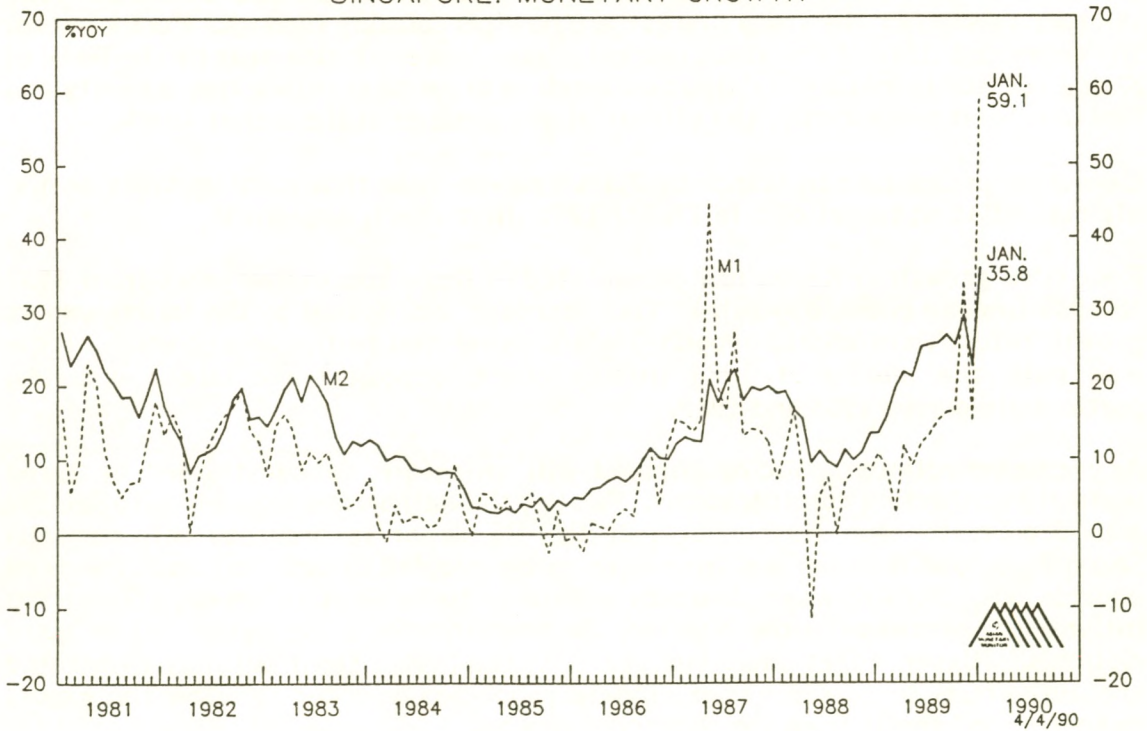
The other NICs reached the peaks of their respective business cycles in late 1987 and their economies have since been slowing in line with weakening exports (see chart). Singapore did not suffer the loss of competitiveness experienced by the other NICs during 1987 and 1988 because the Singapore dollar was held stable against the weak US dollar without any apparent immediate negative consequences for domestic inflation. An important factor extending the cycle for Singapore was that the authorities were able to engineer a domestic policy tightening in 1987, even as exports continued to gather strength. The Monetary Authority of Singapore (MAS) allowed the government's plan to develop a secondary market in Singapore government securities, which required large issues of government debt beginning in May 1987, to drain liquidity from the economy. At roughly the same time the inception of the government's privatisation programme and associated sales of government assets, constituted a further liquidity drain. As a result during 1987 the thrust of the government's operations switched to being contractionary, in a monetary sense.

However, the slowdown in money growth from early 1987 to early 1988 proved, inevitably, to be temporary. With the Singapore dollar still undervalued the domestic tightening resulted in a widening current account surplus which in 1989 reached a record S\$4.6 billion. The growing balance of payments surplus led to a very sharp rise in money growth during 1989 (see chart), M2 growth peaking at 29.3% in November (January money supply numbers were distorted by heavy temporary borrowing associated with a new share issue). As a result by February of this year inflation had risen to 3.6% and now looks set to rise to the highest levels since 1981. Recognising this, between November and January the MAS revalued the Singapore dollar by 5% against a firm US dollar. Therefore, in 1990 Singapore faces the same set of circumstances previously faced by Hong Kong and the other NICs during 1988, namely growing inflationary pressures and erosion of competitiveness, slowing exports and tightening liquidity. Together these factors will likely lead to slower economic growth over the next 1-2 years.

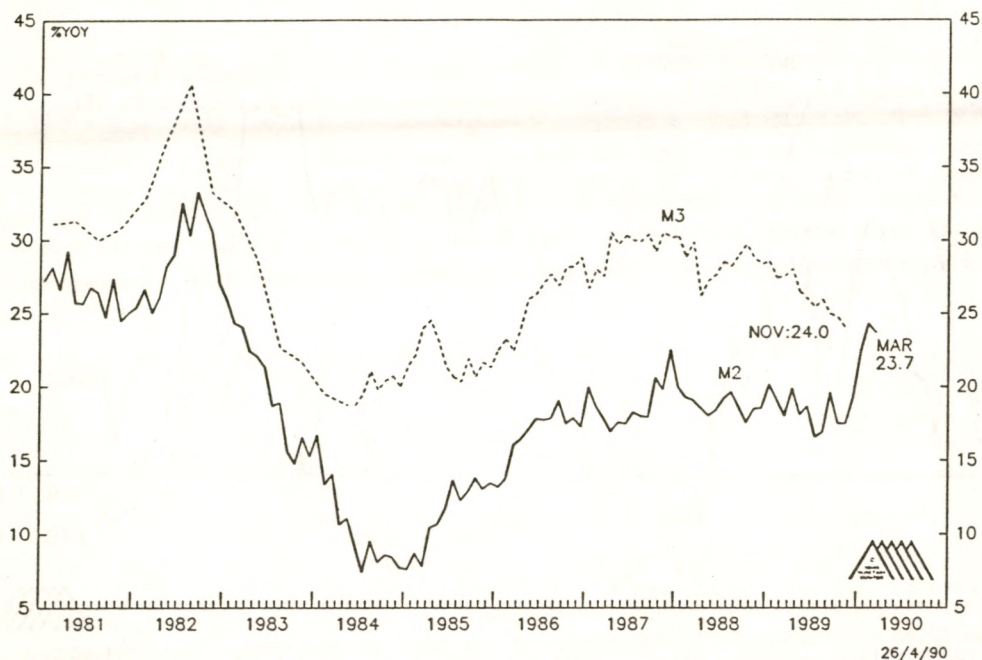
NICs EXPORTS GROWTH



SINGAPORE: MONETARY GROWTH



S. KOREA: INFLATIONARY PRESSURES

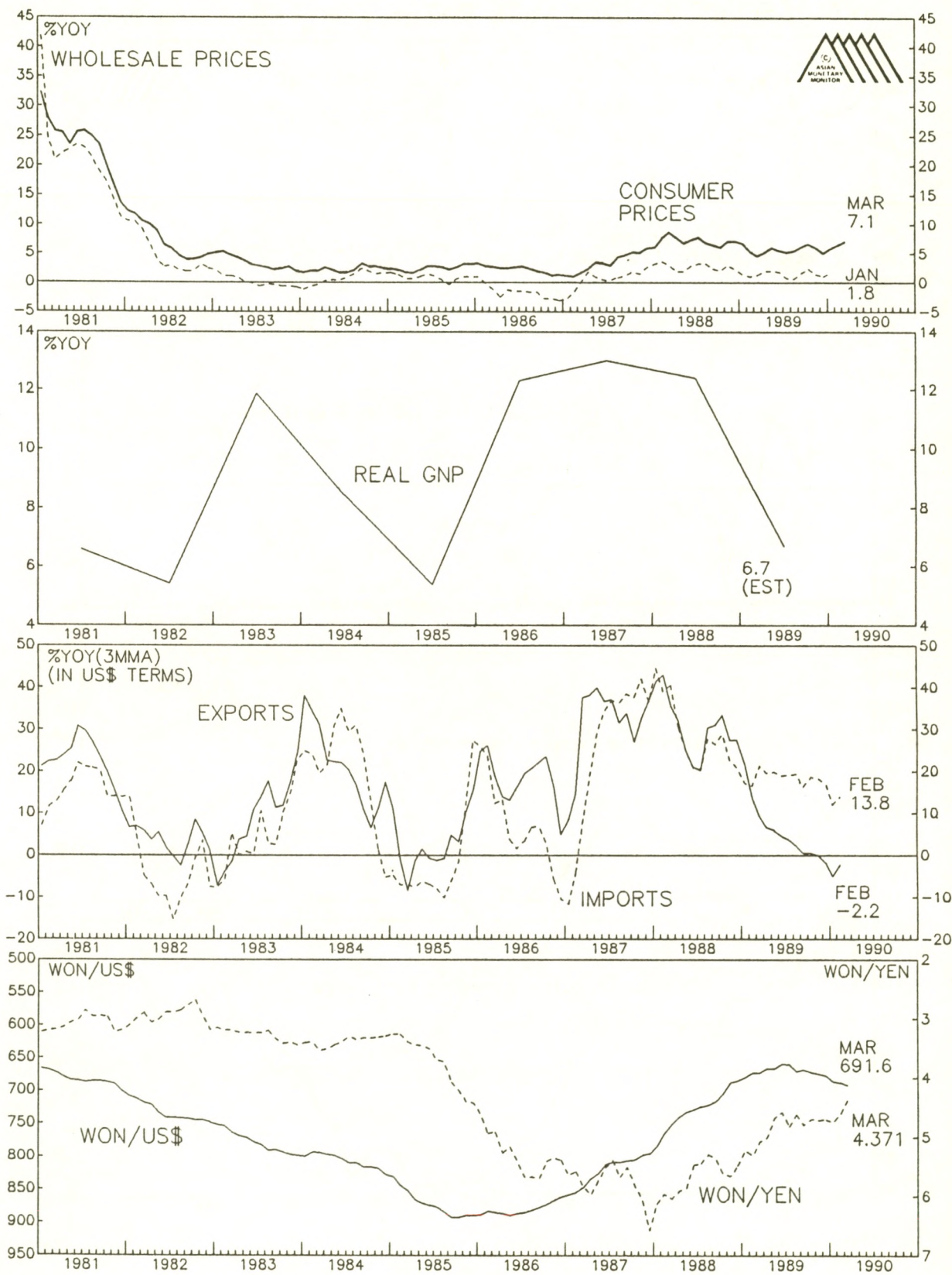


The sharp increases in the level of M2 during the first three months of 1990 do not augur well for the containment of inflationary pressures in Korea. (See chart above, and first chart opposite.) Estimates for the first quarter of 1990 show an increase of M2 of 23.5% year-on-year against an official target of 19 to 22%. Even discounting the New Lunar Year effect on the money stock, the large increases in bank loans made available by the authorities in mid-December 1989 in order to support the stock market are now percolating through. Furthermore, the depressed state of the stock market is now hindering attempts by the Bank of Korea to issue monetary stabilisation bonds in order to reabsorb this liquidity and limit, at least temporarily, the effects of the upsurge in the money stock.

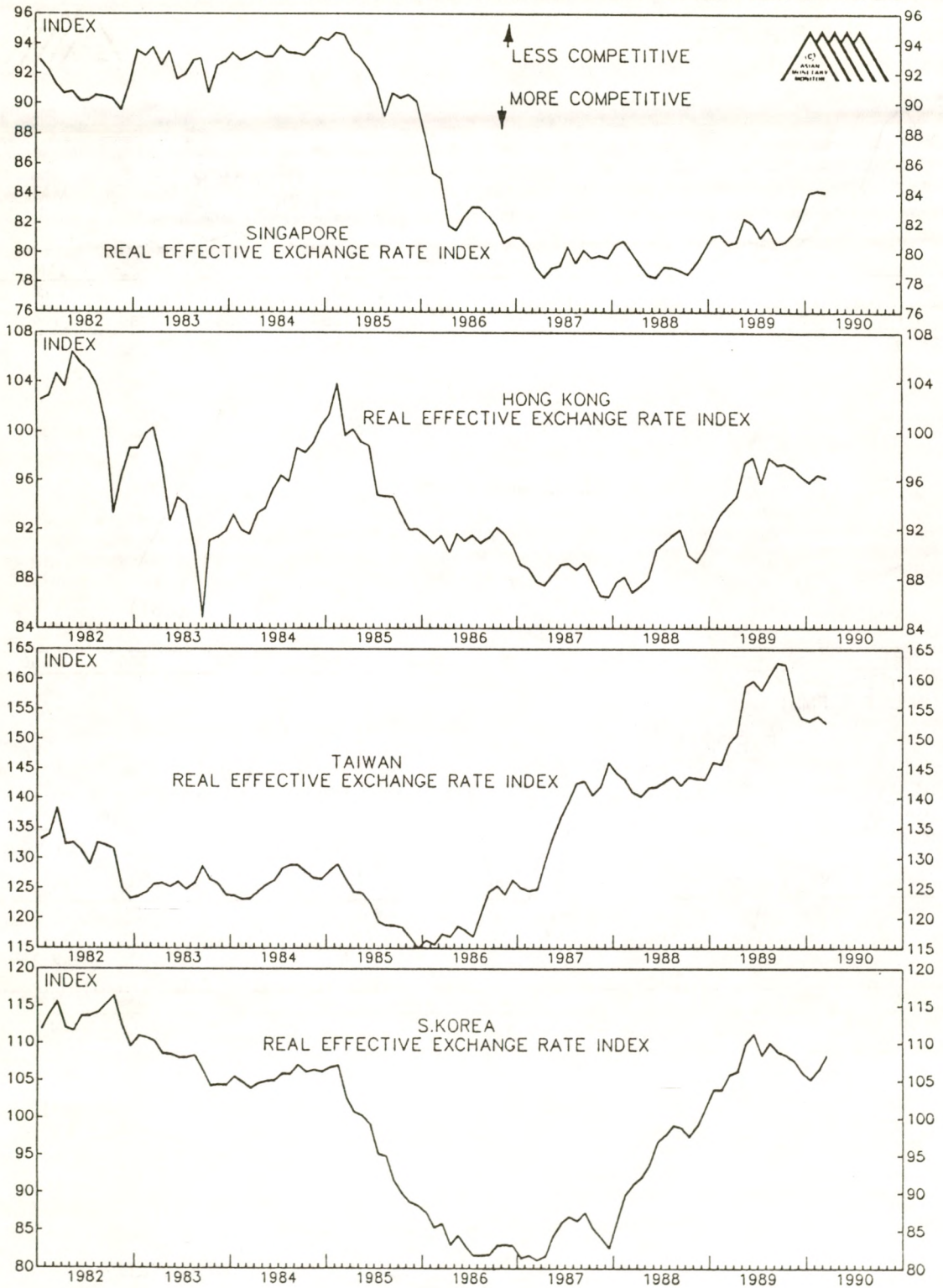
Consumer prices rose in March by 7.1% year-on-year thus casting doubt on the official inflation target of 5 to 7% for 1990 (first chart, opposite).

Real GNP growth in Korea has decelerated in three successive years from 1987 to 1989 (second chart, opposite). This decrease was caused by the falling export growth rates (third chart, opposite) which is related to the appreciation of the won until the middle of 1989 (fourth chart, opposite) and labour disputes, particularly during 1988 and 1989.

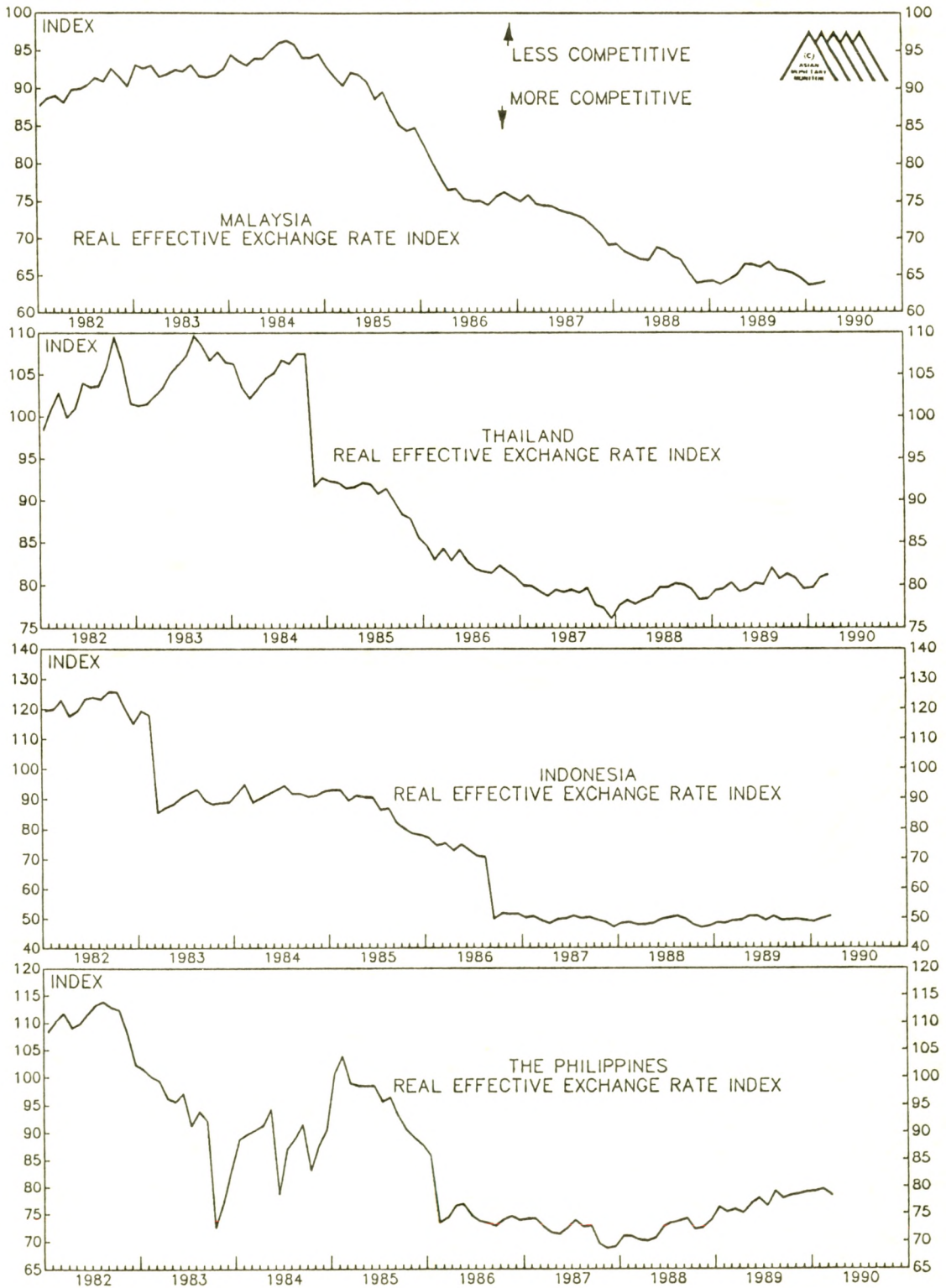
Any counterinflation policies pursued will therefore be constrained by three mutually conflicting considerations. Firstly, the authorities would like to see the won depreciate even further against the US dollar in order to help exports. Secondly labour disputes will also have to be avoided in order to limit losses of exports but, thirdly, wage demands will have to be kept in check. Given the inflationary pressures in the pipeline, the resolution of these issues will be quite difficult. Higher wages could buy peace on the labour front but may then force the authorities to pursue easier monetary policies in order to allow the export industries to benefit from the depreciating won.



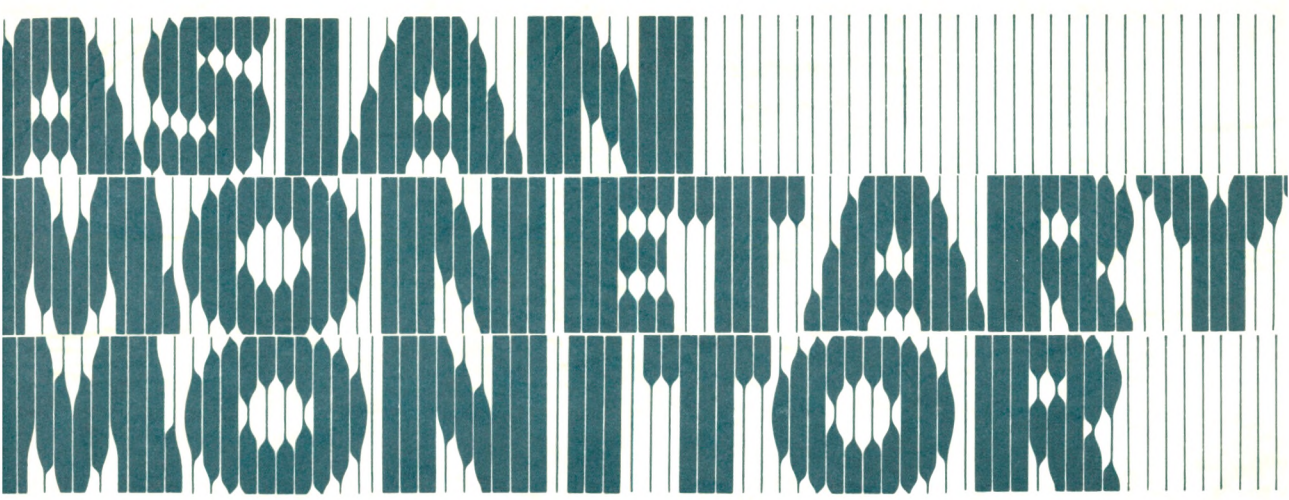
REAL EFFECTIVE EXCHANGE RATES FOR THE ASIAN NICs



REAL EFFECTIVE EXCHANGE RATES FOR SOUTH-EAST ASIA







CONTENTS

	Page
REGIONAL SURVEY	
Valuing Pacific Rim Stock Markets: Japan, Australia and Hong Kong by Andrew Freris	1
JAPAN	
The Relation between Asset Price Inflation and Goods and Services Price Inflation by John Greenwood	14
PEOPLE'S REPUBLIC OF CHINA	
China's Business Cycle and its Impact on Hong Kong Exports by Tim Lee	33
ECONOMIC CAPSULE	
Thailand: Liberalisation Reduces Central Bank's Control Over Interest Rates TJL	44





John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Tim J. Lee
Editor
Senior Economist
G.T. Management (Asia) Ltd.



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 12964, Hong Kong.

ASIAN MONETARY MONITOR

May - June, 1990

Vol. 14 No.3

REGIONAL SURVEY: VALUING PACIFIC RIM STOCK MARKETS: JAPAN, AUSTRALIA AND HONG KONG

Introduction

This article outlines and explores the predictions of a standard stock market valuation technique, the dividends (or earnings) discount model. The countries studied are Japan, Australia and Hong Kong. A future study will cover the rest of the major Pacific rim markets. In order to ensure consistency and comparability of results the monthly data used here are those published by Morgan Stanley Capital International supplemented, where necessary or appropriate, by national statistics. The period spans 1970-73 to May 1990. A short appendix outlines some further details on the data used.

The aims of this article are, firstly, to test the accuracy of the predictions of this simple model, and secondly to explore some aspects of the cyclical behaviour of these stock markets in the light of these tests. The simplicity of the model used should not detract from its potential usefulness. The model and its several variants are widely employed by the investment and stockbroking industry, and as will be shown, can offer in some cases meaningful insights into the behaviour of markets whilst minimizing technicalities and using only simple assumptions. Where the market behaviour is at variance with the predictions of the model there is, usually, some convincing explanation. Financial models are there to provide a framework of interpretation and prediction rather than act either as mirrors to reality or strawmen put up to be knocked down.

The Model

Investors are expected to pay for a share a price which reflects the present day, i.e. discounted, value of a future stream of dividends. The price, P_0 , at the present moment can be written as

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+k)^t} \quad [1]$$

where D_t are the expected dividends over the next $t = 1, \dots, n$ periods and k is the rate

used to discount them. If the share is to be held indefinitely and dividends grow at a constant rate, g , then the formula simplifies to:

$$P_o = \frac{D_1}{k-g} \quad [2]$$

where D_1 is the expected dividend during the next period and is equal to $D_1 = D_o(1+g)$, with D_o being the current dividend. The same formula and approach can be used to value shares at any other time period, given the assumption of holding them indefinitely and a constant dividend growth rate of g . This model can be applied to the stockmarket as a whole by employing the appropriate indexes to reflect the levels of prices and dividends of the underlying constituent shares.

The model can now be extended to use earnings rather than dividends in the valuation of shares or of markets. It has been argued that investors are far more concerned with the earnings potential of firms rather than their dividends. It has also been pointed out that firms that paid a few or no dividends at all have traded at positive prices whereas the pure dividend discount model in [2] would imply that the shares of such firms should be valueless. However, the switch to earnings rather than dividends has, in the past, caused unnecessary confusion over the interpretation and use of the model.

In the simplest possible format the formula can be rewritten in the familiar price/earnings ratio form by dividing both sides by E_1 , the expected earnings for next period. It must be noted at this point that the practice is to use past earnings, usually over the previous twelve months, as a proxy for expected earnings for the next appropriate period. The formula then becomes:

$$\frac{P_o}{E_1} = \frac{D_1/E_1}{k-g} \quad [3]$$

or, equivalently since $D_1 = D_o(1+g)$

$$\frac{P_o}{E_1} = \left(\frac{D_o}{E_1} \right) \left(\frac{1+g}{k-g} \right) \quad [4]$$

The numerator at the righthand side of [3] is equivalent to the payout ratio, ie the amount that firms pay in dividends out of their earnings. The growth rate g in the denominator can now be interpreted as the growth rate of earnings, as long as the payout ratio remains relatively constant. The decision as to whether to use the dividends or the earnings model can, under certain assumptions, be immaterial as both approaches will yield the same results. Furthermore it can be shown that what determines the value of the firm is its earnings rather than dividends. This, in a simplified form, is the result of the so-called Modigliani - Miller hypothesis. Investors should be indifferent as to whether the firm decides to distribute a lot or a little of its earnings since the effects of high or low distribution are symmetrical. High retention rates (low distribution) results in higher internally financed investment (or equivalently a reduction of the outstanding equity issue) whereas low retention rates (high distribution) have exactly the opposite effects. Although this hypothesis needs to be modified to allow for uncertainty and taxes it does offer a reasonable justification for

adopting an interchangeable approach to the valuation models.

An even more extreme and simplified version which assumes a payout ratio of one (ie $D_1 = E_1$) allows the formula in [3] to be rewritten as

$$\frac{1}{P_0/E_1} = k - g \quad [5]$$

where the inverse price/earnings ratio is simply the earnings yield on shares. This formula can then be used to "solve backwards" for the implied P/E , k or g . So, for example, given P/E and g one can solve for k , the rate of return implicit in the valuation of the market.

This raises the next thorny issue of the choice of the discount rate " k ". Use of the expression [5] is of no use here since it involves a circular process of obtaining first the values of P/E and g and then solving for k . In general k is supposed to reflect the opportunity cost of holding shares in terms of a minimum expected return, allowing for the element of risk involved. A common practice uses long or short term government bond yields as relatively risk free return proxies plus an added risk premium. The latter is usually defined as the difference between the stock index returns (including reinvested dividends) and government bond yields. There are a large number of other risk measures which can be employed, including the variability of share returns as measured by the stock index as well as more complex measures using estimates of "beta" values for national or international markets. The growth component, g , can be measured either as an average or an exponential estimate of past earnings (or dividends) growth. Other estimates use the GNP growth rate as a possible proxy.

Perhaps the most vexing issue in the calculation of the variables which enter the valuation formula concerns the effects of inflation. There are a number of factors which need to be taken into account.

Firstly, the P/E is a real number and hence the rate of interest or yield entering k should be a real rate or yield, usually defined as the difference between bond yields and changes in the consumer price index. This approach raises the very important objection that, since the valuation model is about expected earnings (or dividends), the appropriate rate of inflation should be the expected rate, rather than the historic rate which may be a very poor predictor of future inflation.

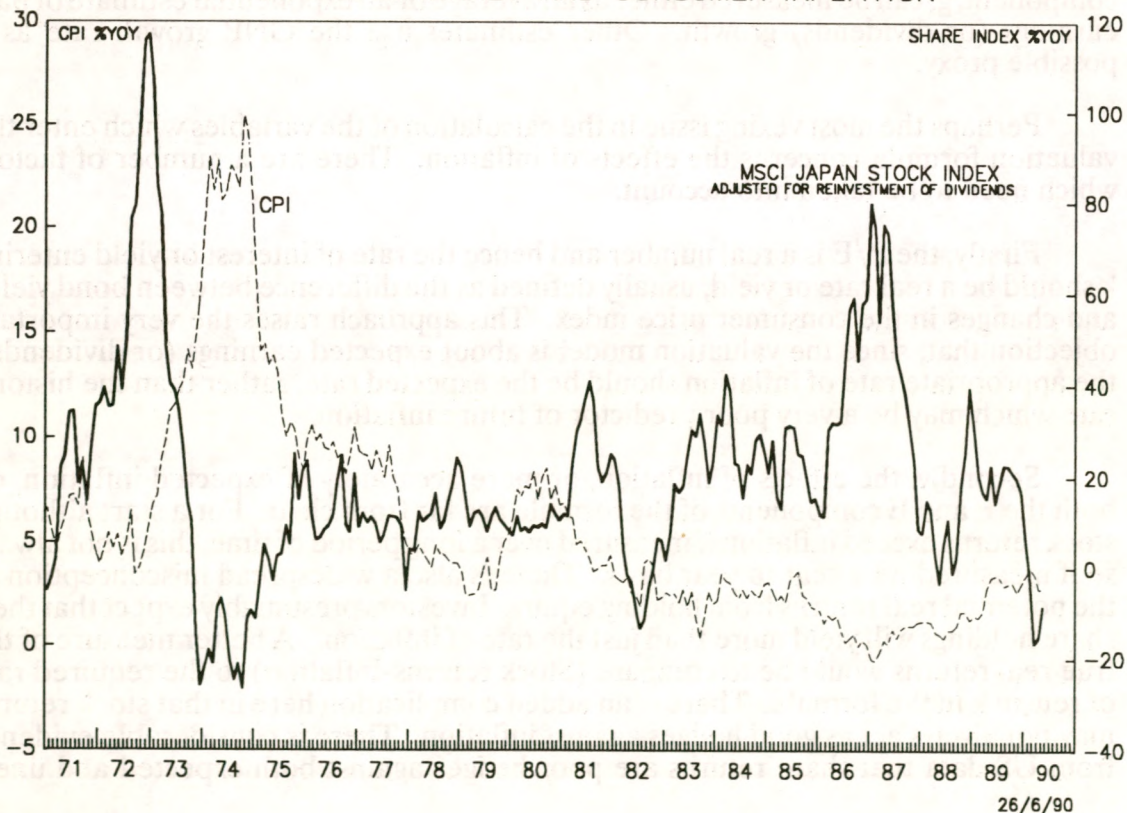
Secondly, the effects of inflation, or more accurately of expected inflation, on both the P and E components of the formula are far from clear. For a start although stock returns exceed inflation if measured over a long period of time, this is not always so if measured on a year to year basis. There is also a widespread misconception of the potential real returns from holding equity. Investors presumably expect that their share holdings will yield more than just the rate of inflation. A better measure of the true real returns would be to compare (Stock returns-Inflation) to the required rate of return k in the formula. There is an added complication here in that stock returns may not always act as good hedges against inflation. There is considerable evidence from US data that share returns are poor hedges against both expected and unex-

pected inflation as measured by the implied inflation rates in government bonds yields. In general, in periods of accelerating inflation stock returns have not increased proportionately with prices.

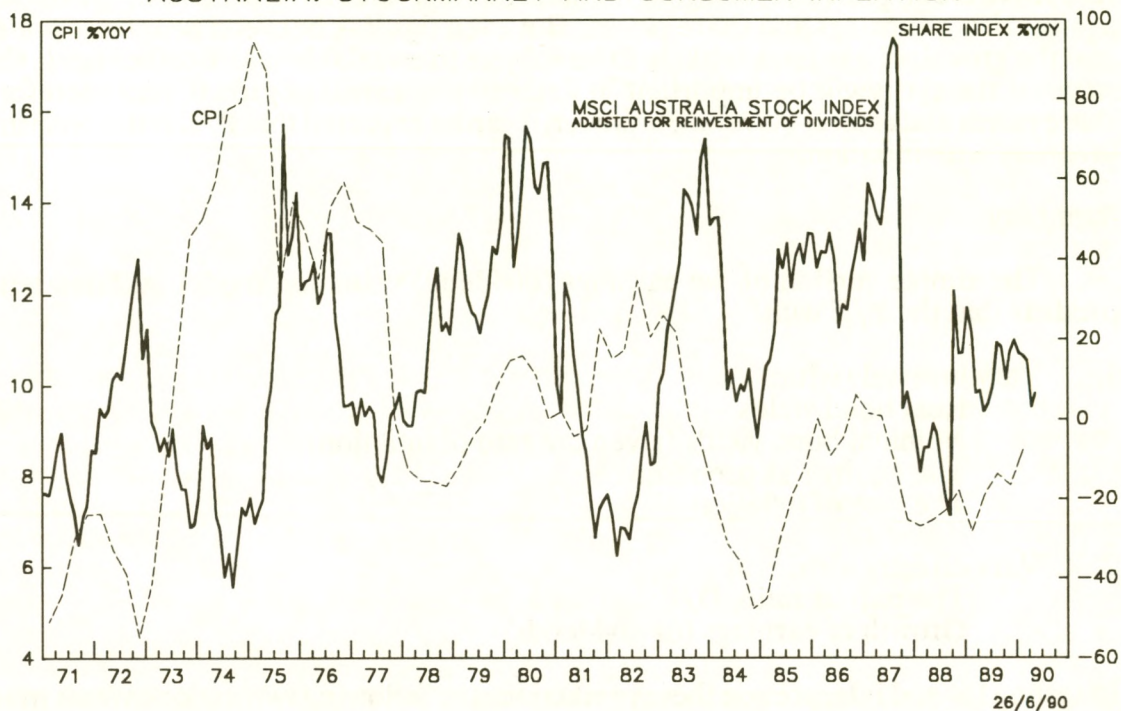
This is partially borne out by the evidence presented in charts 1 to 3 for Japan, Australia and Hong Kong respectively. Leaving aside the sharp inflationary shocks of the two oil crises of 1974 and 1979-80, consistent high real returns in all these countries were achieved in periods of either historically low or declining inflation. (For example, Japan 1986-87, Australia 1975, 1983-84 and 1987 and Hong Kong during 1980-81 and 1985-87). It is tempting also to point out that the correlation between real returns and inflation for all the three countries was negative, but low, -0.58, -0.26 and -0.26 respectively, although these statistics have to be interpreted very carefully as they refer to relationships between real and nominal values.

Inflation can impact on the financial, and therefore stock performance, of firms in a number of other ways. Unanticipated inflation will benefit firms with high gearing but not necessarily firms in the financial sector. Historic cost accounting penalises firms in terms of taxes paid because of failure to adjust profits downwards for depreciation and inventory valuation. At the same time, however, to the extent that historic cost accounting influences the size of profits, it will tend to create an upward bias.

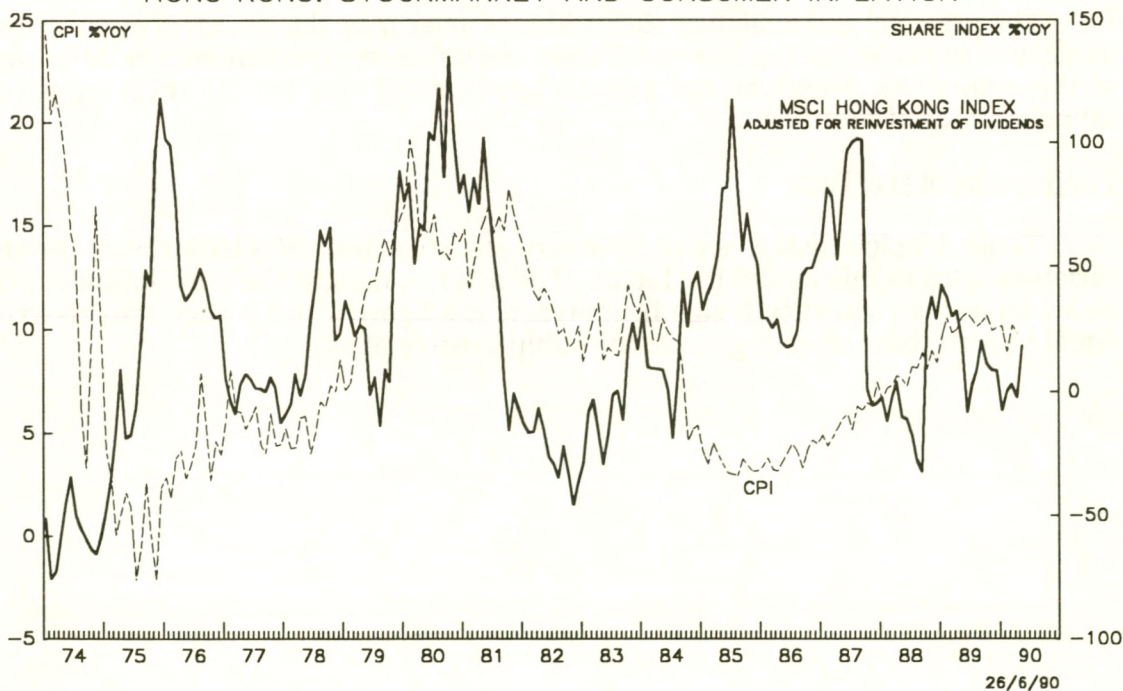
REGIONAL SURVEY: CHART 1
JAPAN: STOCKMARKET AND CONSUMER INFLATION



REGIONAL SURVEY: CHART 2
AUSTRALIA: STOCKMARKET AND CONSUMER INFLATION



REGIONAL SURVEY: CHART 3
HONG KONG: STOCKMARKET AND CONSUMER INFLATION



Finally, there is an added but important complication of the effect of inflation on earnings and on stock prices. Accelerating inflation may well be associated with restrictive credit policies and higher nominal interest rates all of which would militate against rising earnings and share prices. But even this link between economic policy and the growth of earnings is likely to be subject to a variable lag. Furthermore, the stage of the cycle will be important in determining earnings growth and therefore share prices and returns. Overall, however, it can be expected that P/E ratios will vary inversely with inflation.

Summary

The simple version of the earnings (dividend) valuation model outlined here predicts that the P/E will:

1. Vary inversely with:
 - Real bond yields
 - Nominal bond yields (given the rate of inflation)
 - The equity risk premium
 - The rate of inflation
2. Vary directly with:
 - The payout ratio, D/E
 - Growth of earnings (or dividends)

In testing for and interpreting these predictions the following two major caveats must be kept in mind:

1. The assumptions of the model concerning constant growth of earnings (or dividends) and an infinite holding period.
2. The practical and analytical difficulties of measuring the variables entering the model and in particular the role of inflation and inflation expectations, the definition of the equity risk premium and related questions of real (or inflation adjusted) expected rates of return.

The Results of the Tests

Table 1 below lists a set of summary statistics and correlation tests for the variables used in this model for Japan. The asterisk against the correlation coefficients indicates a statistically significant result, ie a figure which is very unlikely to be equal to zero thus indicating no relationship existing at all.

Table 1

Statistical Test Results for Japan (1970-90)

Basic Summary Statistics

<u>Variable</u>	Average (A)	Standard Deviation (S)	S/A
P/E	25.6	14.2	0.55
Growth of P/E (%)	12.3	30.9	2.50
Growth of earnings (%)	7.50	15.8	2.00
Growth of dividends (%)	2.90	6.20	2.13
Payout ratio (D/E)	0.37	0.085	0.22
Real stock returns (%)	13.9	25.9	1.86
Risk premium (%)	12.2	24.0	1.96

Correlations between P/E and

Real Bond Yield	+ 0.34*	D/E	- 0.56*
Nominal Bond Yield	- 0.68*	Growth of earnings	+ 0.02
Risk Premium	+ 0.29*	Growth of dividends	+ 0.23*
Inflation	- 0.49*		

Four out of the seven predictions are confirmed simply by looking at the signs of the correlation coefficients. There is however a small and also statistically insignificant coefficient. Real bond yields have the "wrong" sign, but nominal bond yields have the correct sign while the annual rate of inflation in Japan during this period was far from zero, averaging 5.8%.

Chart 4 helps partially to resolve this problem. The model predicts that the P/E should decline when real bond yields rise. Calculating the correlation coefficient for the whole period tends to obscure the cyclical movements of these two variables. So, for example, separating the twenty-one years into four shorter subperiods following very roughly the cyclical movement of the stock index against the real bond yields over 1970-75, 1976-80, 1981-85 and 1986-90, produces results slightly closer to the predictions of the model for at least one of the subperiods. (Correlation coefficients of -0.17, -0.40*, +0.12 and -0.20 respectively). It must be stressed that this particular subdivision of the time periods is rather arbitrary but helps to emphasise the basic premise of examining these relationships over a number of cycles.

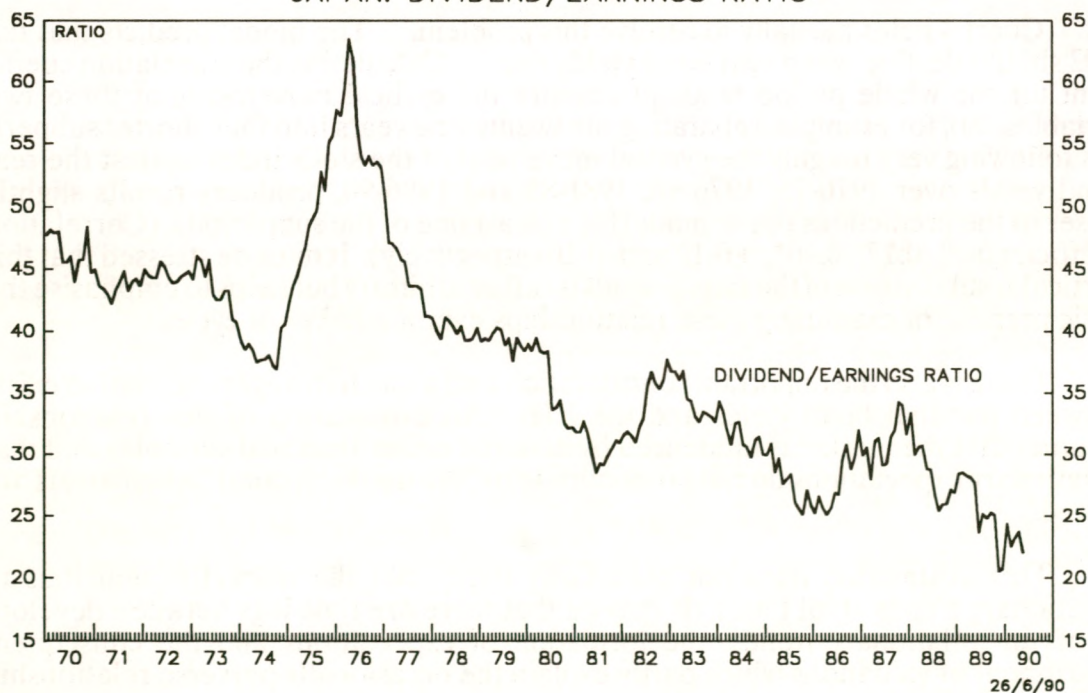
There is also the important consideration that a much stronger correlation exists between nominal bond yields and the P/E. An explanation of this relationship assumes that the market is influenced by nominal rather than real variables and that inflationary expectations do not predominate in "the market's mind" when assets are priced.

This assumption does not necessarily imply that the market is oblivious to inflationary trends at all times. It may be that there are time lags between developments in inflationary trends, the formation of expectations and the consequent adjustment of valuations which partly explain the occasionally perverse relationship between P/E and real bond yields.

REGIONAL SURVEY: CHART 4
JAPAN: P/E RATIOS AND REAL BOND YIELDS



REGIONAL SURVEY: CHART 5
JAPAN: DIVIDEND/EARNINGS RATIO



Similar considerations apply to the rest of the variables determining P/E both in terms of the size of the coefficients (ie how strong the correlation is) and the direction of the relationship (ie the sign). For example the negative rather than positive relationship between the P/E and the payout ratio can be explained. As Chart 5 indicates, the payout ratio in Japan has declined almost continuously since the middle of 1976 whilst as Chart 4 shows, the P/E ratio had been on a generally rising trend over 1978-87.

The behaviour of the markets of Australia and Hong Kong are, in varying degrees, similar to that of Japan in terms of the cyclical relationship between the P/E and its determinants.

Table 2 summarises the results of the tests for the Australian market. Three out of the seven correlation coefficients have the expected signs. In the case of Australia as well, the very small magnitude and "wrong" sign of the real bond yield coefficient is also, partially, explained by separating the data into four periods (1970-74, 1975-81, 1982-87, 1988-90, refer to Chart 6). The first two periods still produce positive correlation coefficients (0.91* and 0.15) but the last two, negative ones (-0.32* and -0.70*).

Table 2

Statistical Test Results for Australia (1970-90)

Basic Summary Statistics

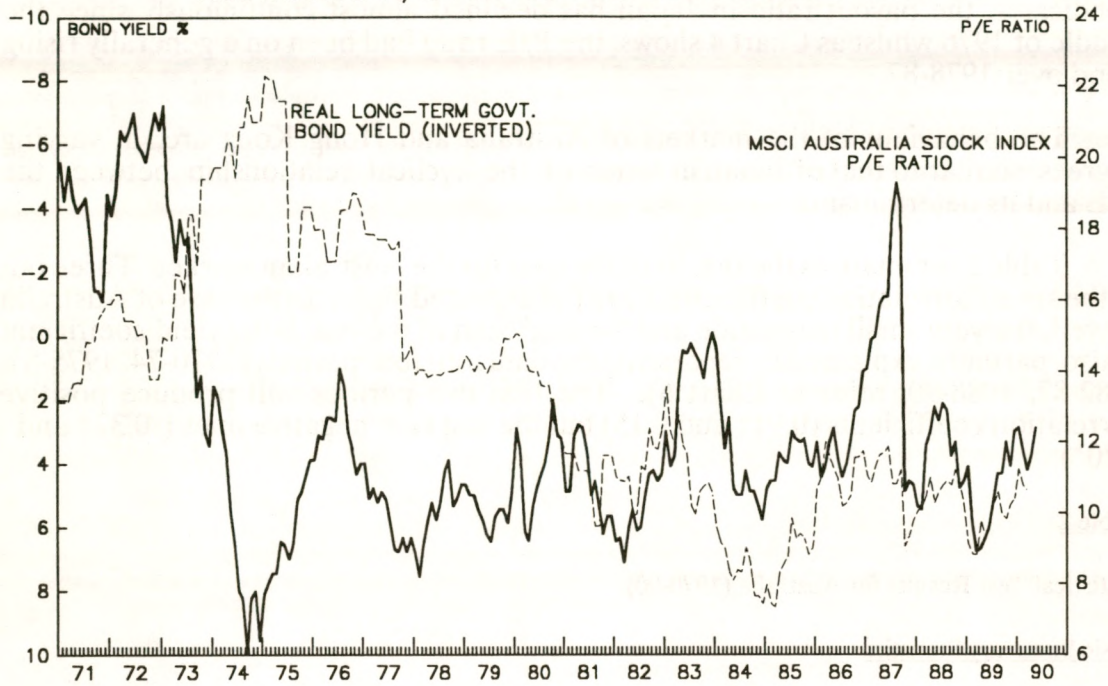
<u>Variable</u>	<u>Average (A)</u>	<u>Standard Deviation (S)</u>	<u>S/A</u>
P/E	12.9	4.21	0.32
Growth of P/E (%)	-0.24	26.7	-111.25
Growth of earnings (%)	12.6	17.6	1.39
Growth of dividends (%)	12.0	12.2	1.00
Payout ratio (D/E)	0.52	0.055	0.10
Real stock returns (%)	5.80	29.0	5.00
Risk premium (%)	4.10	27.9	6.80

Correlation between P/E and

Real Bond Yield	+ 0.06	D/E	+0.40*
Nominal bond yield	- 0.55*	Growth of Earnings	- 0.24*
Risk Premium	+0.21*	Growth of Dividends	- 0.24*
Inflation	- 0.58*		

Finally Table 3 shows the equivalent statistical results for Hong Kong. Five out of the seven coefficients had the right sign including that of real interest rates. As Hong Kong has no government bond market the three month interbank rate was used instead. Two out of the seven coefficients were not significant. The analysis for subperiods 1973-77, 1978-82, 1983-87 and 1988-1990 yielded slightly better but still ambivalent results for the influence of real interest rates (-0.38*, -0.31*, +0.10, +0.16). The P/E and real interest rate relationship for Hong Kong is shown in Chart 7.

REGIONAL SURVEY: CHART 6
AUSTRALIA: P/E RATIOS AND REAL BOND YIELDS



REGIONAL SURVEY: CHART 7
HONG KONG: P/E RATIOS AND REAL 3-MONTH INTERBANK RATES

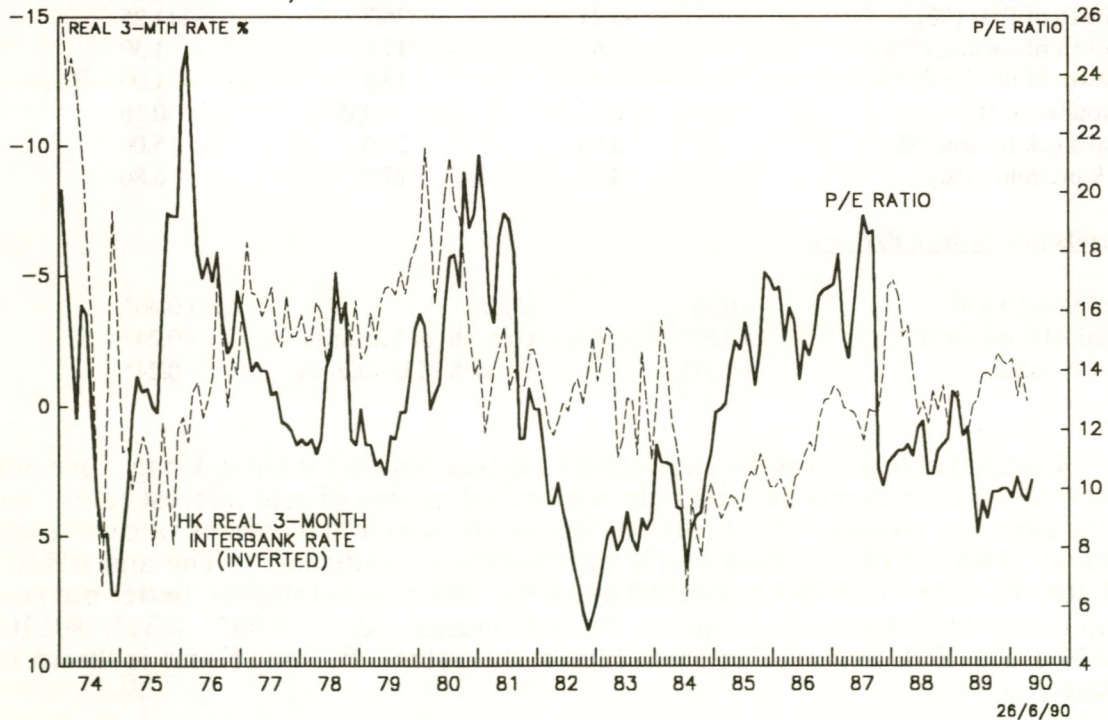


Table 3

Statistical Test Results for Hong Kong (1973-1990)

Basic Summary Statistics

<u>Variable</u>	<u>Average (A)</u>	<u>Standard Deviation (S)</u>	<u>S/A</u>
P/E	14.6	8.06	0.55
Growth of P/E (%)	1.73	45.5	26.3
Growth of earnings (%)	20.0	24.1	1.20
Growth of dividends (%)	17.2	14.7	0.85
Payout ratio (D/E)	0.54	0.068	0.12
Real stock returns (%)	13.7	44.3	3.22
Risk premium (%)	14.9	43.8	2.93

Correlations between P/E and

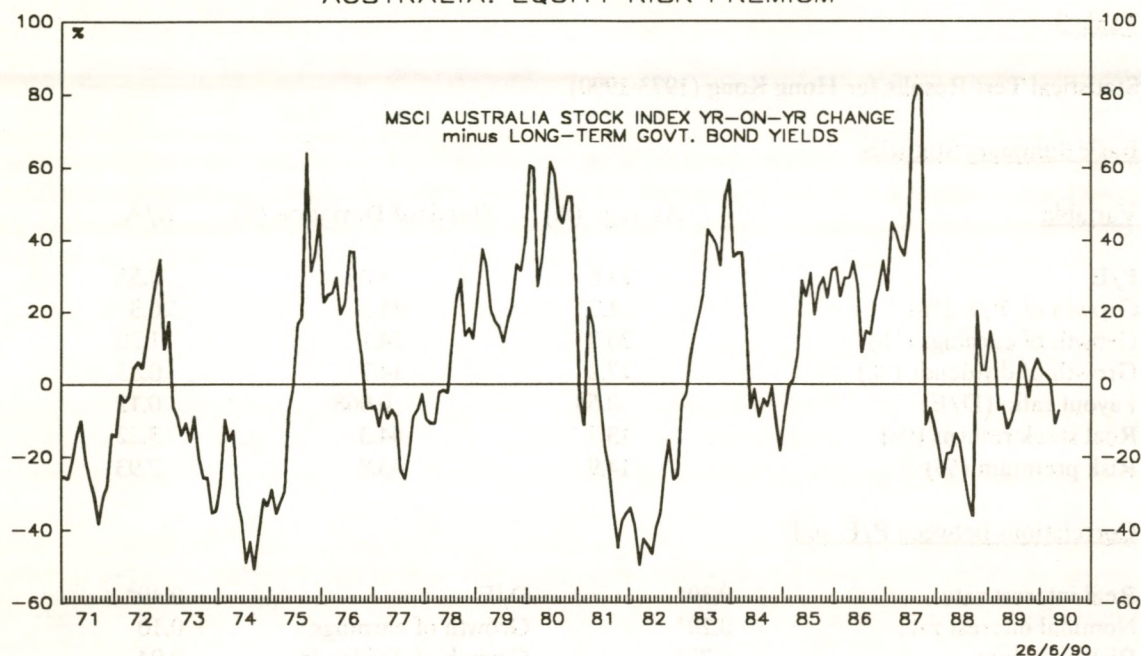
Real interest rate	- 0.39*	D/E	+ 0.49*
Nominal interest rate	- 0.20*	Growth of earnings	+ 0.10
Risk premium	+ 0.70*	Growth of dividends	+ 0.04
Inflation	+ 0.19*		

In all the three country tests the risk premium coefficients had the “wrong” sign and for Japan and Australia were quite small. Given the rather basic definition of the premium used here one possible explanation is that movements in the risk premium did not exhibit any particular trend over the period examined whereas P/E ratios for both these countries rose in general over 1982-87. In the case of Hong Kong, as is shown by the correlation coefficient in Table 3 the movements of the risk premium correlated positively and closely with that of the P/E ratio. In the case of Australia Chart 8 indicates the wide fluctuations of the equity risk premium. Its coefficient of variation (S/A) is in excess of 6, nearly three times as high as that for Japan and Hong Kong (see Tables 1 to 3). Furthermore, for Australia the growth in the risk premium had virtually no correlation with the growth of the P/E.

Evaluation of the Results and Conclusions

These admittedly simple tests can be extended and elaborated in numerous ways in order to refine and analyse further the underlying relationships determining the movements of the P/E ratio. At this stage the results can be summarised as follows. Firstly, there is a statistically significant correlation, with the right sign, between the P/E ratio and nominal bond yields or interest rates, but a much weaker and unstable one with real yields or interest rates. If a generalisation could be made it is that for all the three markets examined (but less so for Australia) the periods of relatively higher correlation with the movements in real bond yields or interest rates were also associated with periods of generally falling or historically low rates of inflation. Given the generally ambivalent relationship between financial variables and inflation, the market valuation of assets is less distracted, so to speak, by inflation when the growth of the price level is declining. Secondly, on a simple count basis and ignoring either

REGIONAL SURVEY: CHART 8
AUSTRALIA: EQUITY RISK PREMIUM



very small or statistically insignificant correlation coefficients, the rest of the variables in the model performed rather poorly. Overall the predictive power of this simple model was unsatisfactory.

As all exercises in modelling stock markets aim, ultimately, at predicting and explaining stock index changes, it is worth considering the influence of the changes of P/E ratio itself on the stock index. Tables 1 to 3 indicate that in the three markets examined the standard deviations of the rate of increase of the P/E ratio are considerably larger in absolute terms than those for the growth of earnings, E, and also the coefficient of variation (standard deviation divided by the mean) is uniformly higher than that of earnings, in the case of Australia much higher indeed. Earnings by contrast varied in a comparatively less volatile manner. It is not therefore surprising that a simple correlation test between the percentage changes in the stock index (without reinvested dividends) and year-on-year percentage changes in the P/E and E produced consistently higher results for the P/E ratio rather than for E (see Table 4).

Table 4

Correlations between percentage changes (YOY) of the stock index and P/E ratios and Earnings, E.

<u>Japan</u>		<u>Australia</u>		<u>Hong Kong</u>	
P/E	E	P/E	E	P/E	E
0.84*	-0.20*	0.79*	0.18*	0.78*	0.013

Overall there seems to be a weak but fairly consistent relation between the P/E ratio and a small number of variables both real and nominal. Inflation and the role of inflationary expectations appears to be an important but yet poorly defined influence on the movement of P/E ratios, which in their turn are closely correlated to changes in the relevant stock indexes.

The conclusion of this study must however be tempered by both the simplicity of the model tested as well as by the difficulties in defining and measuring the variables used for the tests. Furthermore the correlation exercises which formed the core of the tests were conducted on contemporaneous values covering mostly the whole 1970-73 - 1990 period. As was shown in the case of real bond yields or interest rates, subperiod tests produce different results, as would the use of lagged values of variables. The emphasis of these tests were on the simpler versions of the model and in pinpointing areas of interest or unusual behaviour in the markets.

APPENDIX

Description of data used in this study:

All the stock market related variables, ie stock index movements, P/E, earnings and dividends were derived using the Morgan Stanley Capital International index data in local currency terms (1970 = 100). The correlation between the percentage change of the stock index with and without dividend reinvestment for all the three countries is equal to 0.99. Dividend yields are all gross. The bond yields used are respectively the Nikkei long term bond, the Australian 10 year bond and the Hong Kong three month interbank rate. Inflation was measured by using consumer price index changes. The mean and standard deviation were estimated using the biggest sample available allowing for losses of observations when year-on-year changes were estimated. Similar considerations held for the correlation coefficients all of which were tested for the null hypothesis at the 5% confidence level. The summary statistics have been rounded up as have the correlation coefficients. All percentage changes and growth estimates are based on year-on-year changes of the monthly data.

JAPAN

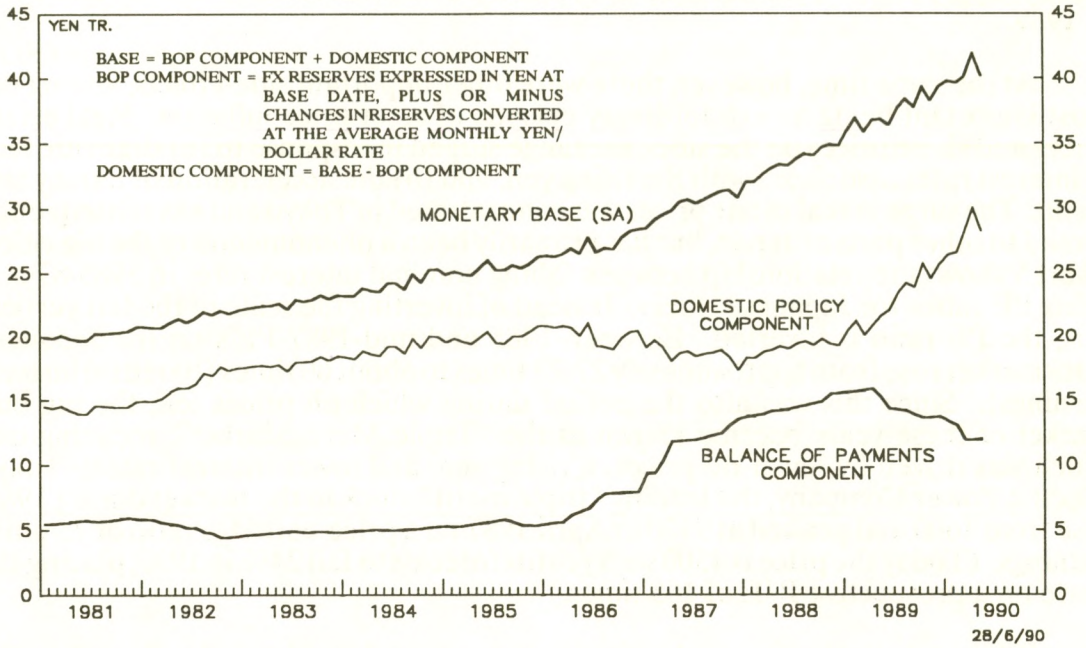
THE RELATION BETWEEN ASSET PRICE INFLATION AND GOODS AND SERVICES PRICE INFLATION

For most of the late 1970s and the first half of the 1980s the Bank of Japan (BOJ) followed an exemplary policy of controlling the rate of growth of the broad money supply M2+CDs. For example, between 1983 and 1986 the growth of M2+CDs averaged 8.1% p.a. Over the same period the monetary base grew at 6.0% p.a. (see Charts 1 and 2). Allowing for a lag of approximately one year between money and nominal GNP, nominal GNP grew at an average rate of 5.3% between 1984 and 1987, which in turn was composed of 4.2% p.a. growth of real GNP and 1.1% p.a. growth of the GNP deflator.

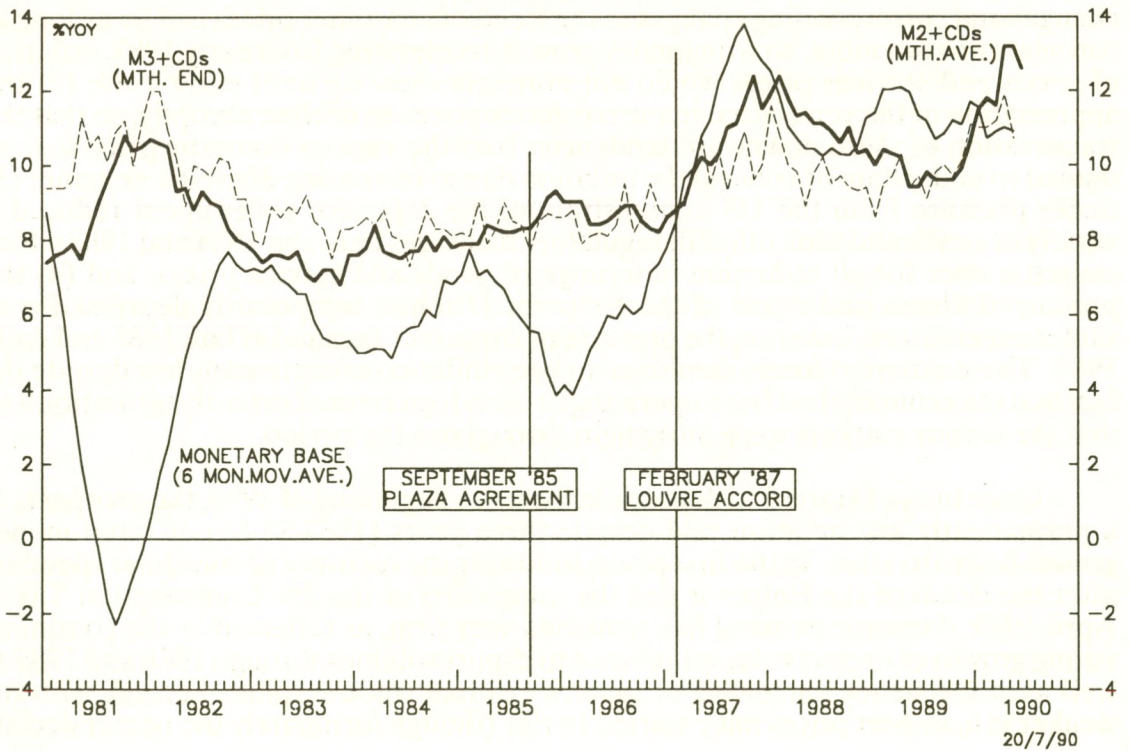
However, following the Plaza Agreement of September 1985 and particularly following the Louvre Accord of February 1987, the Bank of Japan's policy started to deviate from the disciplined path it had pursued in earlier years. These currency agreements among the G-7 countries called for the Japanese authorities to assist in US dollar support operations, keeping the US dollar within certain specified ranges - usually these ranges were not publicly disclosed - and effectively preventing the value of the yen from rising as much as it otherwise would have done on international currency markets. This required the Bank of Japan to intervene in the foreign exchange markets, buying dollars and selling (i.e. creating) yen to balance supply and demand at any given exchange rate. The result, clearly visible in Charts 1 and 2, was first to create a surge in the balance of payments component of the monetary base (due to the acquisition of US dollar foreign exchange reserves by the Bank of Japan) and second to cause the broader money supply (M2+CDs or M3+CDs) to accelerate as loan demand expanded in response to the lower interest rates associated with a stronger yen and an increase in base money within the system. During the period March 1986-December 1987 Japan's foreign exchange reserves swelled from US\$27.9 billion to US\$81.5 billion, ultimately peaking at US\$100.3 billion in April 1989. Initially most of these purchases of US dollars were sterilised i.e. they were prevented from causing the Japanese money supply to increase by a countervailing decline in the domestic policy component of the monetary base via open market operations in the domestic money markets. For example, whenever the BOJ bought dollars it would simultaneously sell yen bonds or bills out of its portfolio. However, by the end of 1986 sterilisation was no longer being implemented aggressively enough to offset the continuing inflow of dollars, which consequently translated into an accelerating base and an accelerating money supply. Thus between the beginning of 1987 and April 1990 the growth of the monetary base has averaged 11.4% (compared with 6.0% p.a. in 1983-86) while M2+CD growth has averaged 10.6%, (about 2.5 percentage points greater than the 8.1% growth rate recorded between 1983 and 1986).

One reason for the willingness of the authorities to permit the money supply to accelerate in 1987-88 was the widely held view in Japan that the 70% upward appreciation of the yen between September 1985 and mid-1987 (Chart 3) would cause a recession in the Japanese economy, or what the Japanese termed "endaka-fukyo" (literally: high yen-recession). To stave off such a recession and to enable Japan to contribute to the reduction of international payments imbalances by increasing its imports relative to exports, it was necessary to increase domestic demand. Without doubt the acceleration of monetary growth succeeded most effectively in accomplish-

JAPAN: CHART 1
MONETARY BASE AND COMPONENTS



JAPAN: CHART 2
MONETARY GROWTH



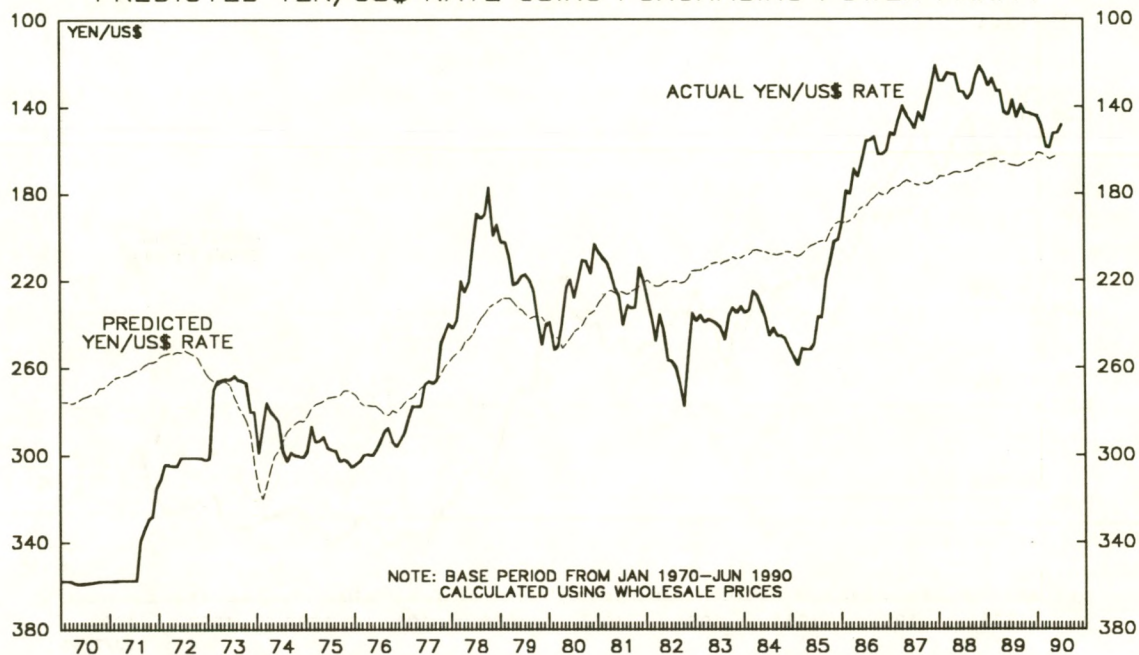
ing these intentions. The nominal GNP first slowed down to 4.4% in calendar year 1986, and 4.3% in 1987 (see Chart 4), but then, following the acceleration of the broad money supply in 1987, the nominal GNP accelerated back to 6.3% in 1988 and 6.5% in 1989.

At the same time, however, there were other important side-effects, among the most important being an extraordinary episode of asset-price inflation. Real estate prices and share prices on the stock exchange surged in response to (a) dramatic falls in interest rates associated with the rising yen, and (b) the acceleration of money and credit. The surge in real estate prices was concentrated in Tokyo and has subsequently spread to other parts of Japan, but has primarily been a phenomenon of the big cities. Chart 5 shows the relationship between falling nominal interest rates in 1985-87 and rising PE ratios for Japanese stocks. Instead of inverting the scale of the left vertical axis, the PE ratio is inverted. Between 1985 and mid-1987 PE's on the Japanese stockmarket rose from approximately 27-28 times to about 60 times (based on historic earnings). Since this was also the period during which oil prices fell, the big bull market of these years became known as the "Triple Merit Market", meaning one which was driven by lower oil prices, a rising yen, and lower interest rates. Tokyo Electric Power Company, the leading "triple merit" stock in the market during 1986, rose from 1600 and peaked at 9420 in April 1987 on a price-earnings ratio of 75 times earnings. (Today the price is 4500 with profits forecast to fall 24% in 1990, placing the share on a prospective P/E of 165 times.)

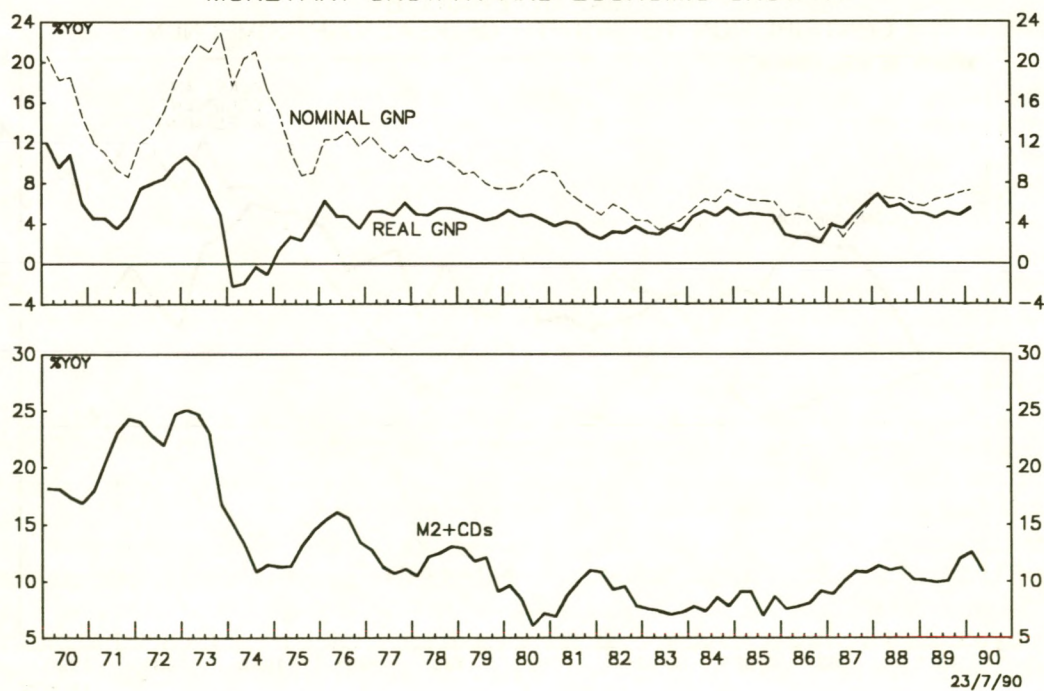
While asset prices rose, the prices of goods and services as reflected in the wholesale price index or the consumer price index either fell or remained relatively unchanged. The reasons why asset price inflation did not rapidly percolate to the prices of goods and services were primarily four: (1) the normal lag between monetary changes and corresponding changes in the trend of consumer prices can be as long as two years or even more, so with money growth accelerating from early 1987, inflation of goods and services prices would not normally show up until early 1989; (2) the appreciation of the yen caused imported goods prices to decline abruptly, so that the transmission of these downward tendencies into the various domestic price indices tended to understate or conceal the inflation due to increasing domestic demand; (3) under pressure from the US administration, the Japanese government reduced a variety of tariffs and took other deregulatory measures between 1985 and 1988 which caused a once-for-all reduction in a range of goods and service prices; and (4) the prolonged illness and death of the Emperor Hirohito temporarily depressed consumer expenditure, lowering the pressure of consumer demand in late 1988 and early 1989. These different forces combined to keep inflation exceptionally low despite the fact that the economy had been operating at fairly high rates of capacity utilisation and that the labour markets were fairly tight throughout the period.

Once the yen started to depreciate from the beginning of 1990, the prospects of a permanently low inflation rate despite three years (1987-88-89) of rapid money growth began to alter. In the first place, following the recovery of consumer spending after the death of the Emperor and the imposition of the 3% Consumption Tax in April 1989, domestic demand has remained very firm, as reflected in the continued strong growth of import volumes relative to export volumes through 1988 and 1989 as well as in the steady narrowing of Japan's external trade surplus. Second, with the weaker yen, import prices have started to rise (though fortunately the recent decline

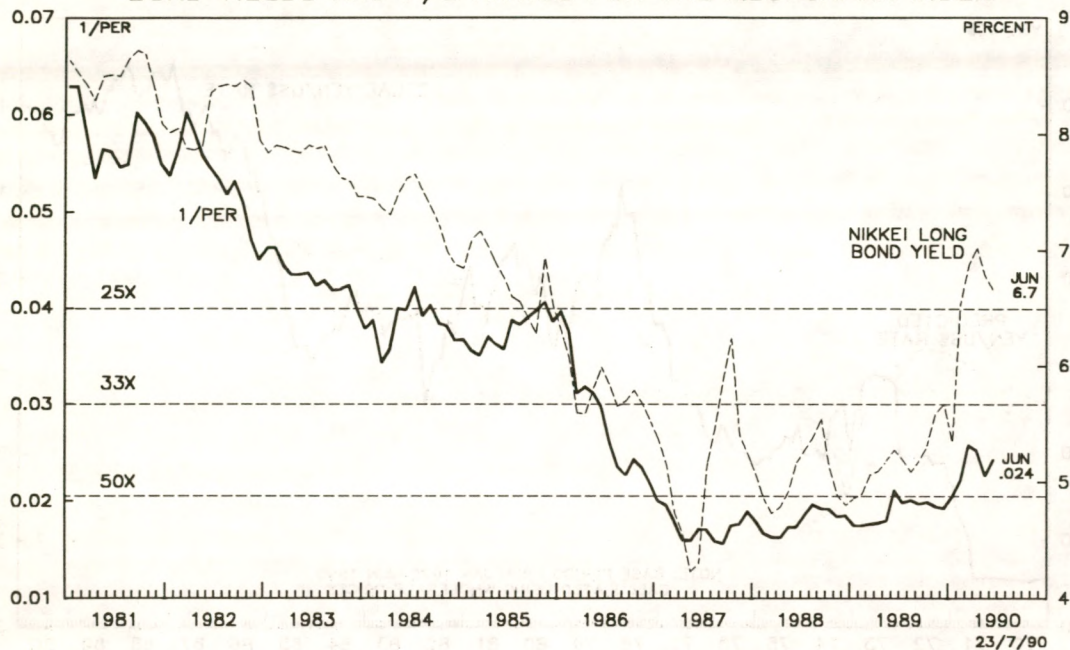
JAPAN: CHART 3
PREDICTED YEN/US\$ RATE USING PURCHASING POWER PARITY



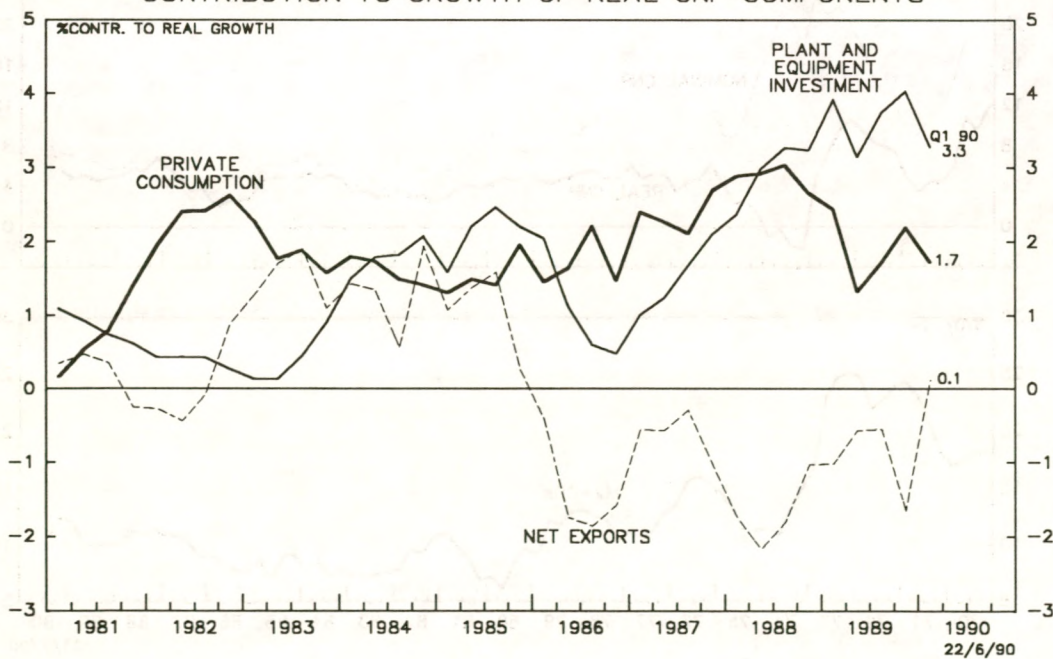
JAPAN: CHART 4
MONETARY GROWTH AND ECONOMIC GROWTH



JAPAN: CHART 5
BOND YIELDS AND P/E RATIOS FOR THE MSCI JAPAN INDEX



JAPAN: CHART 6
CONTRIBUTION TO GROWTH OF REAL GNP COMPONENTS



in the world price of oil has offset the overall upswing), threatening to transmit their upward tendency in yen terms into the general level of domestic prices in Japan. Third, since the economy has remained at a high level of capacity utilisation and the labour market has also continued to show signs of being close to full employment during the past three years, there is no slackening of potential inflationary pressure from these sources. Finally, while it is true that money growth decelerated somewhat between early 1988 and mid-1989, with M2+CD growth slowing temporarily from 13.1% in January 1988 to 8.7% by July 1989, money growth has subsequently accelerated again to over 13% in the first half of 1990. Moreover, since this re-acceleration during 1990 is also reflected in wider monetary aggregates such as M3+CDs, it cannot easily be explained as being a result of any transfer of funds from the postal savings system (which is included in M3+CDs), nor can it satisfactorily be explained by deregulation of the banking system.

Just as the decline in the yen marked the start of the transition from asset price inflation to more generalised goods and services inflation, so the rise in interest rates in late 1989 and early 1990 - triggered by rising interest rates in West Germany consequent upon events in Eastern Europe - marked the beginning of the end of asset price inflation. From late February 1990 the stock market started to fall very steeply, with the Nikkei Stock Average for the T.S.E. 1st Section falling from a high of 38,915 in December 1989 to 28,002 in April 1990. Real estate prices also started to stabilise and even decline as interest rates rose. Instead of the "triple merit" market, commentators began to talk of a "triple demerit" market featuring rising interest rates, a weakening yen, and rising oil prices.

So far, however, it must be recognised that the prospects of higher goods and services inflation has been more a threat than a reality. As at the end of April 1990 the Tokyo CPI had risen by 2.8% over its level a year earlier. This was the first figure which was not distorted by the 3% Consumption Tax imposed in April 1989, and was somewhat higher than consensus expectations of inflation. This in itself was significant as an indication that the underlying inflation rate might be higher than many analysts expected. At the same date the Nikkei Index of 17 Commodity prices had risen 5.4% year-on-year, import prices had risen 13.3% over the year, and the broad wholesale price index had risen 2.7%. With the exception of the latter, these numbers suggest that there is at least some more inflation in the pipeline. In view of (a) the more rapid money growth of the past three years and (b) the delayed transmission mechanism described above, how much inflation can be expected at the CPI level or at the GNP deflator level over the next year or two?

In the analysis which follows we will argue that (1) almost all episodes of asset price inflation in Japan have been followed by CPI inflation, (2) that there have also been two episodes of CPI inflation following yen appreciation (1971-74 and 1979-80), suggesting that yen appreciation alone is not enough to protect Japan from inflation, (3) that simple monetary analysis suggests an average increase of the GNP deflator in 1990-1991 of approximately 4.5%, and (4) that a P* approach to inflation suggests a similar risk of 4-5% inflation in Japan over the next year.

(1) Asset Price Inflation and CPI Inflation

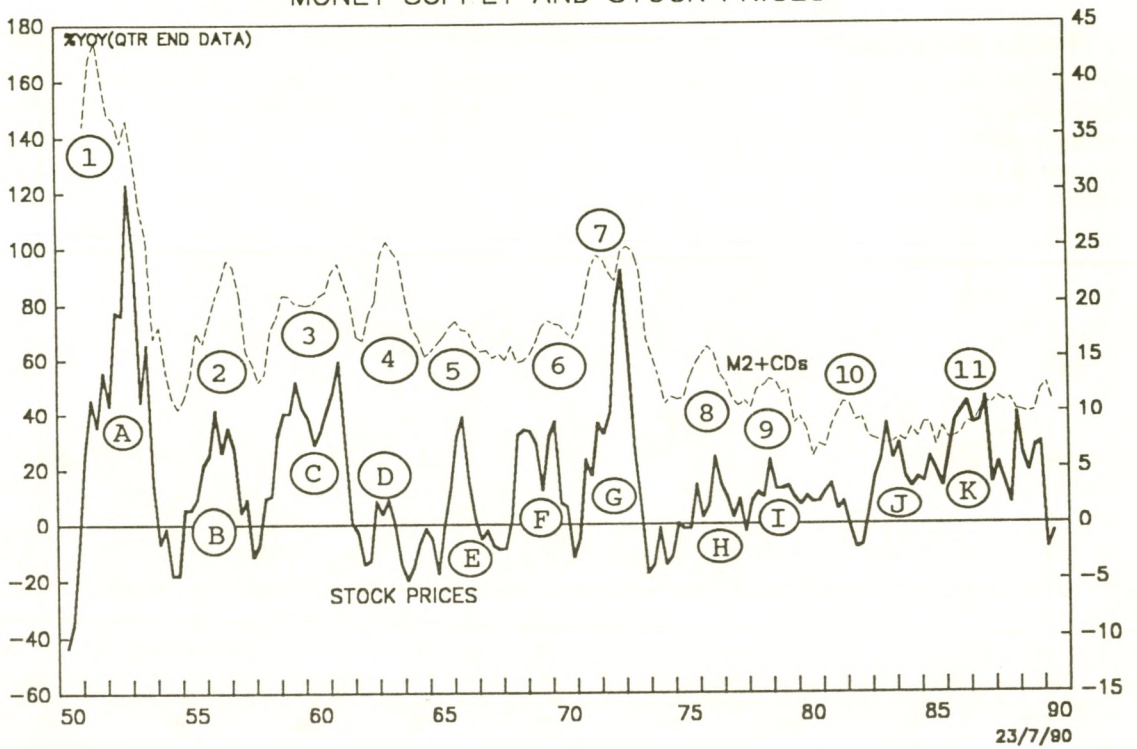
Chart 7 shows the relationship between Japan's broad money supply (M2+CDs)

and stock prices over the 40 year period 1950-1990. For both series quarterly data is used and changes are expressed as a year-on-year rate of change. Because the lags between money growth and stock price changes are variable, each major episode of stock price inflation has been labelled with a letter so as to correspond to a numbered episode of monetary expansion. Although the length of the lag varies considerably, there is a striking association between the two series over the entire period. Without exception every numbered episode of monetary expansion has a corresponding lettered episode of stock price increase. Only in 1962-63 did stock price increases fail to match the scale of the monetary expansion, but they still turned decisively upwards. As an initial conclusion one can state that sustained accelerations in monetary growth are generally associated with stock price increases.

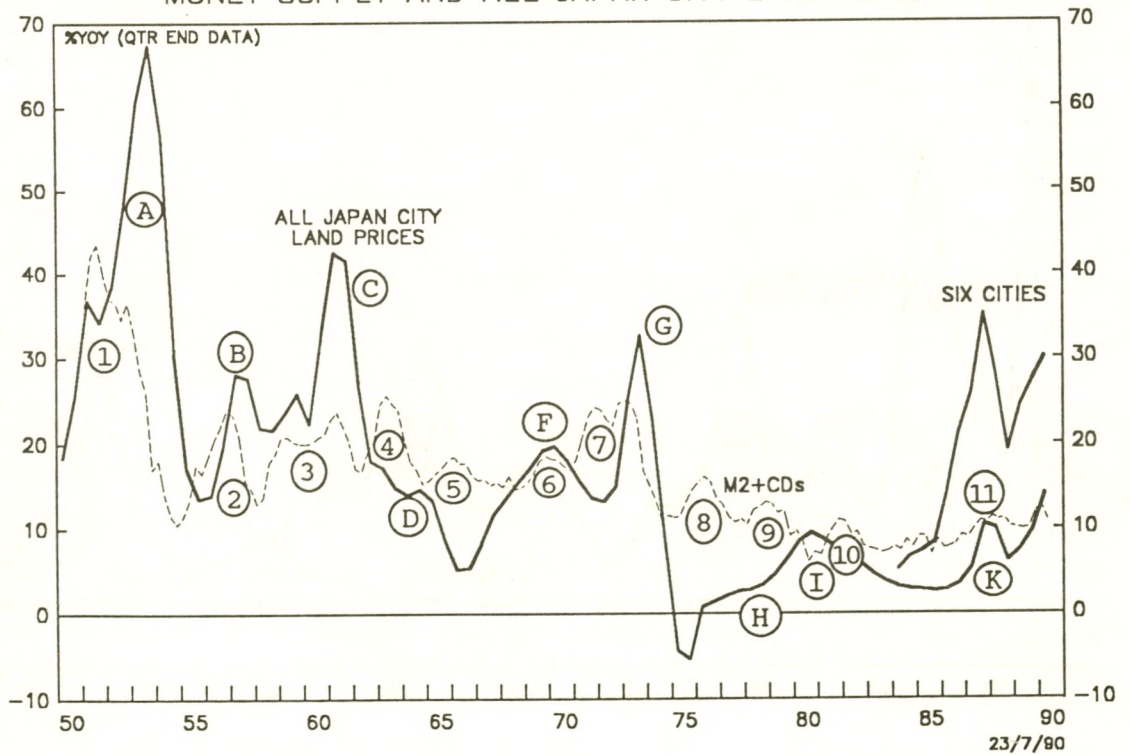
Chart 8 shows the relationship between the same money supply data and an index of land prices compiled by the Nihon Fudosan Kenkyujo (Japan Real Estate Research Institute). With three exceptions there is again a close correspondence between every sustained episode of monetary acceleration and every significant surge in real estate prices. The exceptions are (i) the small monetary upturn in 1965 - numbered (5) in the chart - which was not followed by an acceleration of land prices, but rather by a further deceleration, (ii) the monetary upturn in 1975-76 - numbered (8) in the chart - which was not followed by any significant recovery in real estate prices even after their absolute decline in 1975. In both these cases there is a reasonable explanation for the apparent breakdown in the relationship. In 1965-66 there was a major financial crisis (in which Yamaichi Securities nearly went bankrupt) resulting in part from the monetary squeeze of 1964, and it was probably the pervasive atmosphere of financial crisis which discouraged any recovery in the real estate market. Similarly in 1976 the economy had only just recovered from the deep recession of 1974 and confidence in a generalised recovery was at a low ebb. The 1975-76 monetary upswing was enough to fuel a business recovery, but it did not carry through to real estate prices in any significant degree. The same set of statements would apply to the third exception (iii), the small monetary upswing of 1981-82 which was not followed by any upturn in land prices, but was followed by a business recovery. A provisional conclusion which seems reasonable from these observations is that land prices and stock prices both show a marked response to sustained and significant monetary upswings, but that other factors can at times overwhelm the impact of these lesser episodes of monetary expansion, preventing them from leading to the normal upswing in asset prices. However, all major episodes of monetary expansion would appear to be invariably associated with substantial increases in real estate prices.

Chart 9 compares the behaviour of the broad money supply (M2 + CDs) with consumer prices over the same 40-year period as Charts 7 and 8. A striking correspondence between episodes of sustained rapid growth of money and the emergence of a faster rise in consumer prices is again evident, but in general there is a longer time lag between the accelerations of money growth and the peak in consumer price inflation. As in the relation between money and stock prices and in the relation between money and land prices, there are a couple of exceptions where the relation does not appear to hold so well and some detailed knowledge of the particular period is necessary to explain the apparent divergence. The first such exception was the 1951-53 surge in money growth - numbered (1) in the chart - which produced one episode of inflation in 1950-51 (associated with the Korean War), and a second episode in 1953-54 with prices actually declining during the intermediate

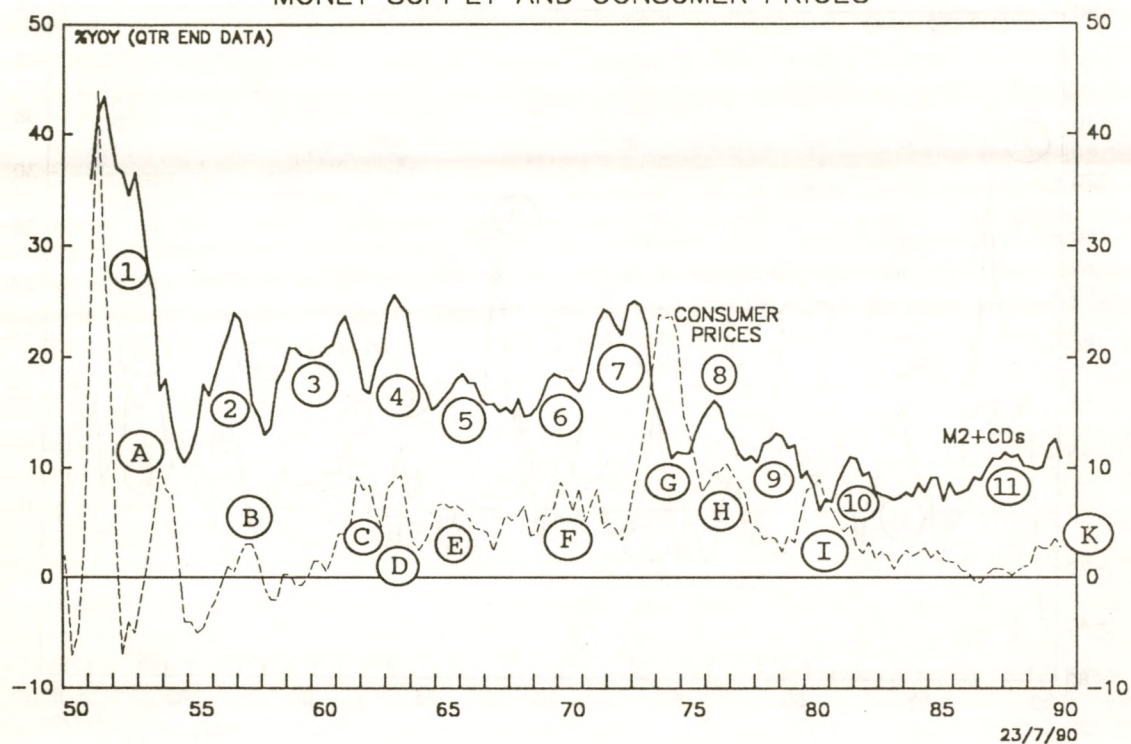
JAPAN: CHART 7
MONEY SUPPLY AND STOCK PRICES



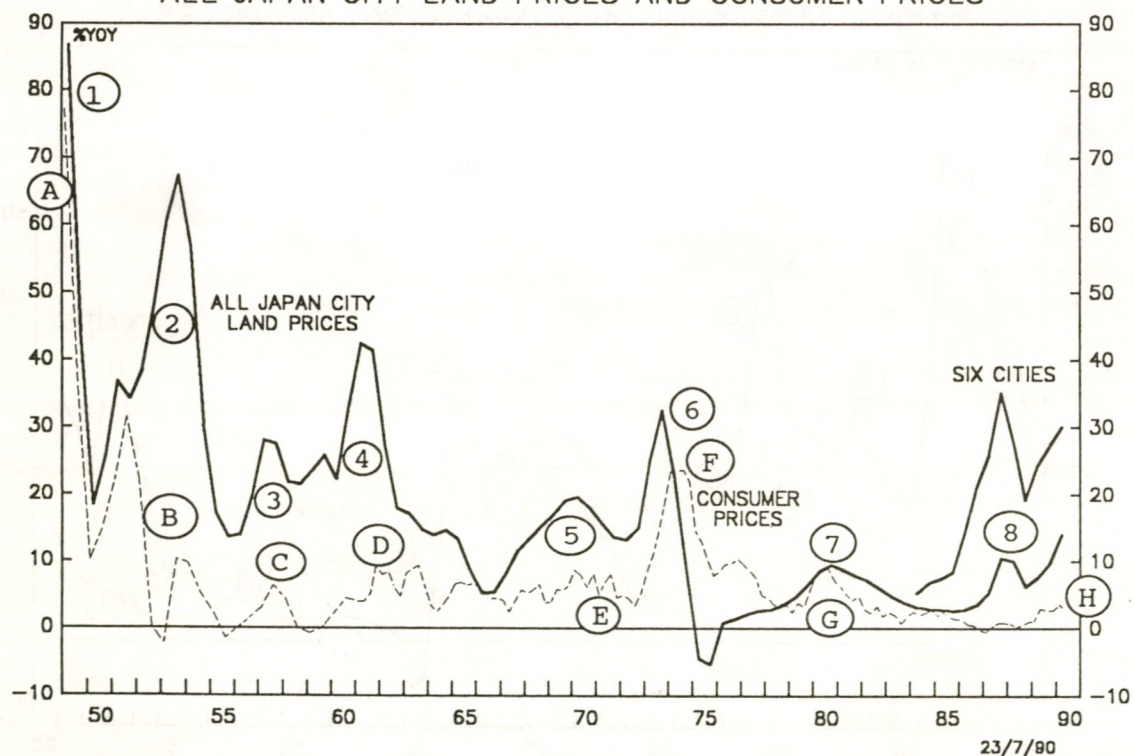
JAPAN: CHART 8
MONEY SUPPLY AND ALL JAPAN CITY LAND PRICES



JAPAN: CHART 9
MONEY SUPPLY AND CONSUMER PRICES



JAPAN: CHART 10
ALL JAPAN CITY LAND PRICES AND CONSUMER PRICES



year 1952. The second exception was the very modest monetary expansion of 1981-82 following the monetary downswing in 1980, which did not have any corresponding inflationary surge although it is notable that the yen was especially weak during this period (see Chart 3). The current episode of monetary expansion, numbered 11 on Chart 9, has also not yet produced any very significant upswing in goods and service prices, but arguably the jury is still out on this episode - i.e. there is potentially inflation ahead.

Finally, Chart 10 compares one form of asset price inflation - real estate prices - with inflation of goods and service prices - i.e. consumer prices. Once again there is a marked correspondence between episodes of asset price inflation and inflation in goods and service prices. Surges in land prices generally start a year or more before the associated upturn in consumer prices, and land prices usually peak before consumer prices, although there is one exception in 1980-81 when consumer price increases peaked one quarter ahead of the semi-annual index of land price increases.

Why should this relationship be expected to hold so strongly over so many years? The reason is that the relationship stems from a very basic proposition of monetary theory, namely the quantity identity or equation popularised by Irving Fisher,

$$MV \equiv PT \quad (1)$$

where M is the stock of money, V is velocity or turnover of each unit of money per unit of time, P is some average price level of all assets, goods and services, and T is a corresponding aggregate of quantities transacted during the same interval of time. Assuming some stability in the amount of money firms and households wish to hold per unit of income or wealth i.e. some stability of velocity V, the relationship can be written as an equation:

$$MV = PT \quad (2)$$

where V is a stable, but not immutably fixed, value, varying with a limited range of variables. Now the right hand side of the equation can be divided into two components, namely the total value of transactions involving transfers of existing assets or wealth, and the total value of transactions involving the flow of goods and services:

$$MV = PA + Py \quad (3)$$

where PA represents the total value of assets transacted and Py represents the total value of the flow of goods and services.

In the economics classroom PA is normally ignored, and attention is focused on income velocity, i.e. the velocity corresponding to nominal income Py. However, in the real world as we have shown in Charts 8-11, what happens is that asset prices respond first to any surge in the quantity of money, and goods and service prices follow later.

Thus, given an increase in the money supply from M to M', one can conceive the following two-stage response in the prices of assets and the prices of goods and services, ignoring for these purposes any temporary change in the real volume of assets or the real flow of goods and services:

$$M'V = P'A + Py \quad (4)$$

where P'A represents an increase in the price of assets to a new level P', while the price

ASSET INFLATION versus GOODS AND SERVICES INFLATION - A BUREAUCRAT'S VIEW

(From Euromoney's 6th Tokyo International Financial
Markets Conference, Tokyo, 21st February 1990.)

".....Finally, I would like to express my view on Japan's role in stabilizing the world markets.

"As I have mentioned earlier, the Japanese economy has been showing a very solid and stable economic performance. However, in contrast, the Japanese markets have been showing certain instability from the beginning of this year. With the word "markets", I am referring to the stock market, the bond market and the foreign exchange market. The recent developments in these markets have been called "triple cheaps", meaning cheap stock prices, cheap bond prices and cheap yen. A fall in the bond prices, or as seen from the other side of the coin, a rise in the interest rates, caused a drop in the stock values. Then, the interest rate hike, which could have pushed the value of the yen up, has not in fact brought about its appreciation. The movements of these three markets indicate that they do not reflect the fundamentals of our economy and are governed rather by short term, uneasy market sentiments.

"In the past few years, Japan's bond and stock markets have been anchoring the world markets. It was a fact of life. But what would happen if markets in Japan lost their stability?

"Needless to say, price stability is a prerequisite for economic growth. But I am a little bit concerned that there are those who treat the so-called "asset inflation", that is to say, the rise in land and stock prices, as an important part of the inflation. Asset inflation is, by nature, different from inflation in the proper sense of the word. Confusion in the diagnosis of the illness would cause confusion in choosing the right remedy. Broadening the definition of inflation to include assets might cause confusion in identifying where the real problem lies and what kind of policy should be adopted to cope with it. I am also concerned that such misleading discussion might create some kind of ambiguity concerning the policy intention of the authorities and would eventually lead to instability in the market. I think that we should avoid any kind of ambiguity concerning the course of our fiscal and monetary policies, which might lead to market instability. The stability of the Japanese markets themselves is the foundation not only for the maintenance of a stable and strong domestic demand in Japan but also for the stability of the world economy.

“Therefore, maintaining the stability of our markets and thus providing an anchor for the world markets and for the world economy, should be an extremely important policy objective of our country in 1990.

Thank you.”

Makoto Utsumi
Vice Minister of International Affairs
Ministry of Finance

* * * * *

This passage expresses a viewpoint quite contrary to that expressed in the accompanying article. According to the analysis presented in AMM, Mr. Utsumi is seriously in error. Asset price inflation is a part of the inflationary process, separable only by its timing from goods and services inflation. As the accompanying article shows, every significant episode of asset price inflation in Japan since 1950 has been followed by a rise in the prices of goods and services.

The illusion which Mr. Utsumi has enjoyed is that he and his colleagues were somehow contributing to international financial stability by artificially fixing the value of the yen between 1985 and 1989. In reality they were simultaneously destabilising Japan's domestic economy by creating or permitting excess money growth and thereby generating asset inflation which was liable, in time, to lead to CPI inflation. It was not Japan's stock and bond markets which were the anchor for world's financial markets; it was Japan's stable monetary policy up to the end of 1986 which was the anchor for both Japan's domestic price stability and the stability of its economic growth rate. As we know from what happened after February 21st in Japan's financial markets, Mr. Utsumi's claim about the stability of Japan's bond and stock markets and their role as an anchor for markets elsewhere was a myth. Moreover, when Japan's stock market did crash, financial markets in other countries were virtually unaffected.

International economic cooperation is a grandiose label for fixing or managing exchange rates. Too often this has been at the expense of domestic monetary stability (i.e. stable money growth rather than stable interest rates). For the sake of stability in the global economy, international economic cooperation should be relegated to take second place to domestic monetary stability.

of goods and services remains unchanged. At a later stage one may conceive of the price of goods and services adjusting to some new level corresponding to (but not necessarily representing the same increase as) the new price level of assets:

$$MV = P'A + P''y \quad (5)$$

The argument here is that Japan over the past four years has experienced the process represented by equation (4) i.e. an increase in asset prices, while the process represented by equation (5) i.e. an increase in goods and services prices has been temporarily delayed or suppressed, and is yet to emerge.

(2) Yen Appreciation and CPI Inflation in Japan, 1971- 74 and 1977-1980

Following the breakdown of the Bretton Woods system of fixed exchange rates in 1971-73 there have now been three major episodes of yen appreciation. Between August 1971 and September 1973 the yen appreciated from 340 per dollar to 265 per dollar or by 28.3%, but between August 1973 and December 1975 wholesale prices increased by 35.6% while the All-Japan consumer price index increased by 41.9%. Similarly, between January 1977 and November 1978 the yen appreciated from 290 yen per dollar to yen 200 per dollar, or by 45.0%. On this occasion the inflation which followed was much less serious, with wholesale prices rising by 29.0% between November 1978 and December 1980, and consumer prices rising only 13.0% over the same period. The third and most recent episode has seen the yen appreciate from close to 260 yen per dollar in early 1985 to 120 yen per dollar, or by 116.7%, by the end of 1987.

The mechanism linking inflation to the appreciation of the currency operates through central bank intervention in the foreign exchange market. In its attempt to prevent the yen appreciating the Bank of Japan purchases foreign currency - usually on the Tokyo foreign exchange market - and creates yen by crediting the reserve accounts of Japanese banks at the Bank of Japan with yen corresponding to the amounts of foreign currency which the central bank has acquired. This provides the Japanese banks with additional yen to lend, and, unless the purchase of foreign exchange by the Bank of Japan is neutralised by a sale of domestic securities (i.e. sterilised), the result is an increase in the Japanese money supply. After a sustained monetary acceleration it may then take up to two years for inflation to emerge. It was this process in 1971-73 which led to 25% p.a. increases in the broad money supply (M2), and in turn led to the inflation of 1973-75. In 1977-78 the monetary acceleration was far smaller, involving only a mild upturn from 10% to 12%, and this was in any case followed by a deceleration in money supply in 1979 down to about 7% in 1980, following an increase in interest rates in late 1979. Not surprisingly the inflation which followed in 1979-80 was far less serious than in 1973-75.

From this brief description of the background to Japan's inflation in 1973-75 and 1979-80 it can be seen that the recent record of yen appreciation accompanied by monetary acceleration is following quite a familiar pattern. If inflation is to emerge as a serious problem in Japan the important questions are (a) when it will emerge and (b) what will be the overall rise in the CPI or GNP deflator. The "when" part of the question has been implicitly dealt with by the argument above that yen appreciation, deregulation and tariff adjustments etc. all helped to delay the impact on prices of

rapid monetary growth. By implication, yen depreciation and the ending of the favourable one-time effects of tariff reduction should start to allow the price inflation to emerge over the coming year. As to the rate of goods and services inflation which is likely or possible, this will be examined by reference first to a simple monetarist calculation of the likely inflation rate in 1990-1991, and second by the application of the P-Star Model (introduced by the Federal Reserve Board staff in February 1989) to Japan.

(3) A Monetarist Forecast of Japanese Inflation

To measure the potential for inflation in any economy one needs to know the money growth rate over recent years, the long term trend of velocity, and the normal or trend rate of real income growth. This is because,

$$\dot{P} = \dot{M} + \dot{V} - \dot{y} \quad (6)$$

or, in words, the rate of change of prices is equal to the rate of change of money growth plus the rate of change of velocity minus the rate of growth of real income.

For Japan the rate of growth of money, defined either as M2 + CDs or M3 + CDs, is readily obtainable. M2 + CDs is suitable for the current purpose because a long-term series of data is available for this definition of money which will provide a consistent measure of the long term trend of velocity. The next question to be faced is the time period over which to measure M2 + CDs in relation to any forecast for inflation. As shown in the sections above, the lag between money and inflation is variable, and can be as long as two years or more. We therefore take the average rate of money growth over the past two calendar years, 1988 and 1989, as our measure for predicting inflation in 1990 and 1991: 10.6% p.a. This ignores the acceleration of money growth in 1987, but we will assume that either there may have been some upward shift in the demand for money (i.e. a downward shift in velocity) due to deregulation or due to the internationalisation of the yen sufficient to absorb the excess money created in 1987, or that the increase in money in 1987 was entirely absorbed in the transactions associated with higher asset prices, and has remained tied up in the wealth or asset part of the economy, and will not impact upon the income or flow side of the economy.

The trend of velocity must be calculated from observation over a long time period. Chart 11 shows the inverse of velocity, or Marshallian k (the ratio of money to nominal GNP), for the period 1965-1989. Intuitively the upward trend of this line means that as nominal GNP has risen over the past 25 years, the holdings of money of Japanese households and firms have risen even more. The deviation of the actual ratio from its trend line since 1986 has been quite striking, suggesting that money growth has been substantially in excess of income growth - even allowing for the upward trend of Marshallian k - since 1986. Chart 12 shows the same ratio inverted, i.e. the ratio of nominal GNP to money (M2 + CDs), but to keep the charts visually comparable the scale for velocity is inverted. It is notable that the deviation of velocity from its trend appears smaller than the deviation of Marshallian k. This is mainly an optical effect because as time progresses, velocity is declining, so that the absolute deviation from the trendline appears smaller. In fact the deviation in percentage terms is roughly the same as the deviation of Marshallian k from its trend. In any event

the trend rate of change for velocity for 1965-1989 is -1.89% p.a.

The average real GNP growth rate for Japan over the past 10 years, which we take as its potential or trend growth rate, has been 4.2% p.a.

Plugging these values into equation (6) and rounding to one decimal place gives:

$$\dot{P} = 10.6 + (-1.9) - 4.2 = 4.5$$

This result, 4.5% p.a. is an estimate of the potential average rate of increase of Japan's GNP deflator over the two years 1990-1991, based on the assumptions of a continuation of the trend in velocity experienced over the past 25 years, a continuation of the potential growth rate of the economy experienced over the past 10 years, and an assumed two year lag between monetary acceleration and goods and services price inflation.

(4) The Application of P* Analysis to the Japanese Economy

A more sophisticated version of the above analysis has been carried out by the Bank of Japan using the framework of the P-Star Model (P*) of the Federal Reserve System. The BOJ research was reported in their Special Paper No. 186, "A Study of Potential Pressure on Prices - Application of P* to the Japanese Economy", dated February 1990. A short summary of this paper follows.

A straightforward piece of algebra leads to this initial proposition:

$$p^* - p = (v^* - v) + (q - q^*)$$

or, in words, the difference between the potential price level (p*) and the current actual level of prices (p) is given by the deviation of current velocity (v) from potential velocity (v*) and the deviation of current real GNP (q) from potential GNP (q*). Expressed verbally:

$$\text{Price gap} = \text{velocity gap} + \text{real GNP gap}$$

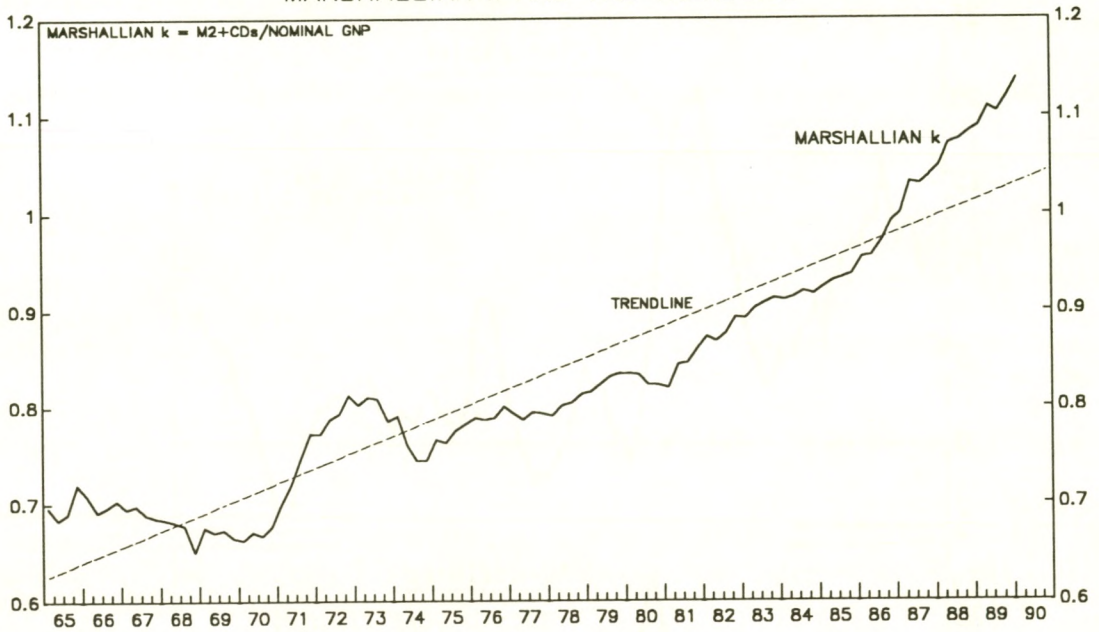
i.e. the greater the long-run equilibrium of velocity than the current value of velocity, or the greater the current value of real GNP, the greater will be the price gap or the deviation between potential prices (P*) and actual prices (P).

The Bank of Japan calculated the velocity gap as the deviation from its linear trend (similar to Chart 12), and performed a statistical test on the trend to ensure that the trend was stable in the long run.

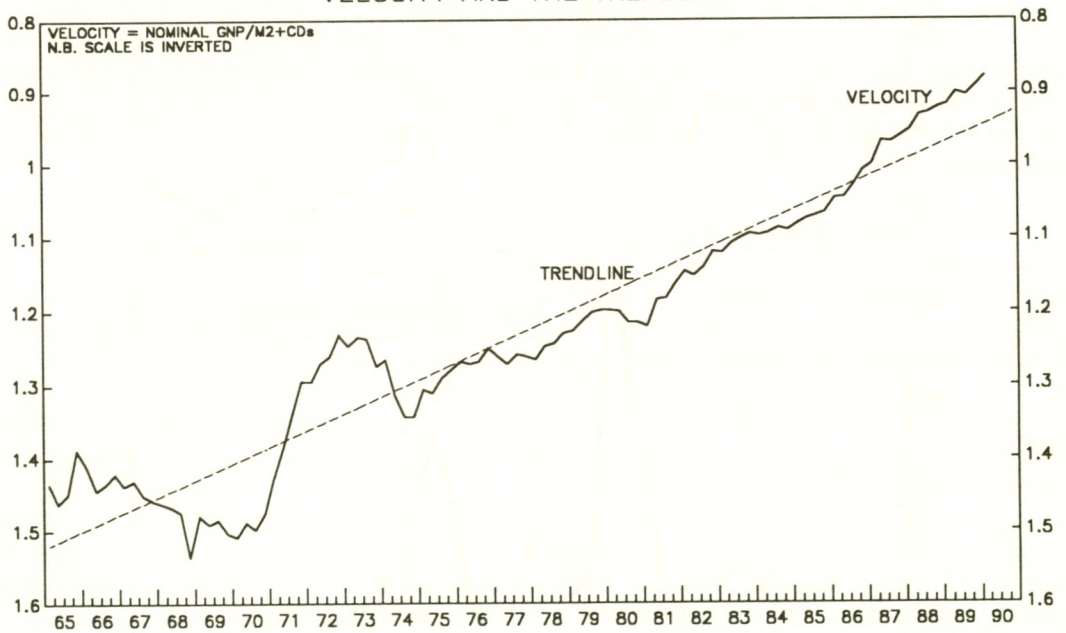
The Bank of Japan then estimated the real GNP gap based on their own methods, taking into account the effect of imports, import prices and volumes, capacity utilisation, the unemployment rate and overtime workhours.

The price gap was then calculated as the sum of the velocity gap and the real GNP gap, and the result is illustrated in the top panel of Chart 13 which is taken from the Bank of Japan study, with the price gap indexed to 1975=0. The price gap was

JAPAN: CHART 11
MARSHALLIAN k AND THE TRENDLINE

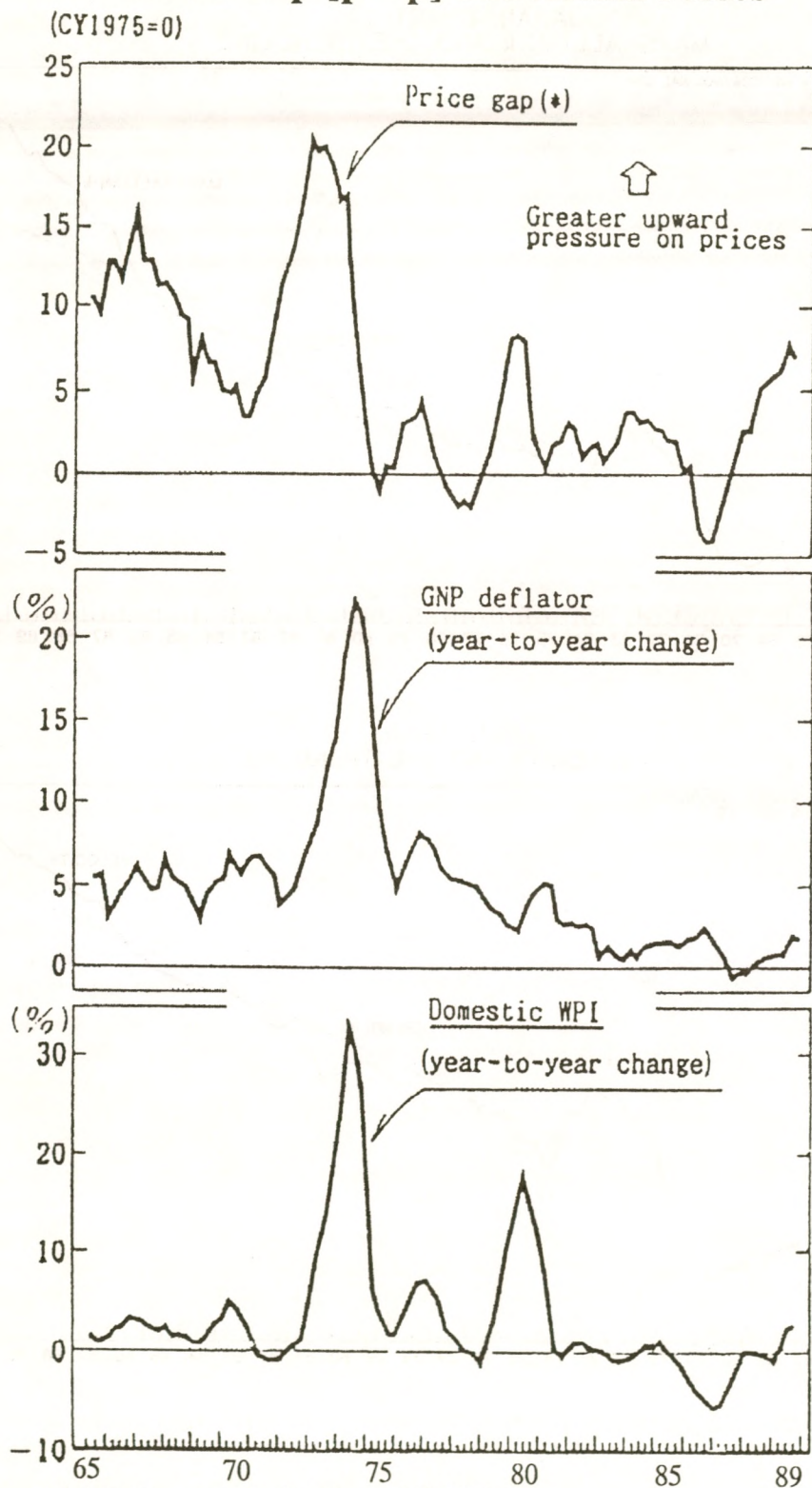


JAPAN: CHART 12
VELOCITY AND THE TRENDLINE



JAPAN: CHART 13

Price Gap [$p^* - p$] and Actual Prices



Source: Bank of Japan

found to correlate with the GNP deflator and the domestic wholesale price index with a lag of approximately one year. The price gap was also found to have more explanatory power than either the velocity gap alone or the real GNP gap alone.

The BOJ study concludes, "In sum the price gap can be considered useful as a simple yet comprehensive indicator of potential upward pressure on prices. With respect to forecasting, however, the price gap is subject to some limitations, since the results of regression suggest relatively large standard errors and strong serial correlation."

If we examine Chart 13 we observe that the main error of forecasting actual inflationary episodes was in 1966 when the price gap was showing upward price pressure of 15 and yet the GNP deflator and wholesale price inflation remained quite subdued at 5% and 3-4% respectively. This was also the occasion referred to earlier in this paper when, following the intensive squeeze of 1964, there was a financial crisis in 1965, as a result of which monetary policy was eased (episode number 5 on Charts 7, 8 and 9), but, because the economy did not respond rapidly to the easing of policy, velocity fell far below trend. (Note that it subsequently rose continuously relative to trend until 1970.) In short, it was the financial climate of anxiety in 1965-66 which artificially depressed velocity, causing a large "velocity gap", and pushed up the BOJ estimate of the price gap or upward price pressure - pressure which never really materialised. All other episodes of inflation since 1970 have been quite accurately forecast by the price gap measure.

Turning to the current readings given by the BOJ measure of the price gap (in fact, they are measures as of late 1989), Chart 13 suggests that the upward pressure on prices as a result of the recent growth of the velocity gap and a relatively high level of actual GNP relative to potential GNP will generate inflation at the GNP deflator level equal to the inflation experienced after the second oil crisis. At that time the GNP deflator rose to just over 5% p.a. in mid-1981, a full year after the peak in the price gap indicator which peaked in mid-1980.

SUMMARY AND FORECAST: Monetary growth in Japan since 1987 has deviated from the disciplined 7-9% growth rate for M2 + CDs achieved in the years 1980-86. The deviation resulted from the misguided policy of attempting to hold the yen-dollar rate within certain agreed ranges under the G-7 currency agreements, starting with the Plaza Agreement in September 1985 and continuing through the Louvre Accord of February 1987. While the appreciation of the yen seemed to produce some benefits such as lower interest rates in Japan and cheaper imports, the parallel monetary acceleration touched off an across-the-board boom in the Japanese economy which has maintained domestic demand growth at a very strong rate. To date most of the price consequences have been confined to asset prices (land and property prices and stock prices), but there is reason to be concerned that goods and services prices may soon start to rise under the sustained pressure of prolonged excess monetary growth and continuing strong excess demand. Inflation of goods and services prices is almost always preceded by asset price inflation; the two phenomena are simply different stages in the percolation of any monetary stimulus through the economy. Monetary analysis suggests that Japan's GNP deflator over the next two years will average about 4.5%, substantially in excess of its current rate (1990 Q1) of 1.7% year-on-year. Even

the Bank of Japan's own more sophisticated P* analysis suggests an inflation potential comparable to that experienced at the time of the second oil crisis in 1979-81 when the GNP deflator peaked at 5.1% year-on-year and the CPI peaked at 8.9% year-on-year.

If these predictions of inflation are broadly correct, interest rates in Japan must rise to reflect inflation plus the real interest rate. With global real rates remaining at or near 4%, this implies Japanese interest rates could reach 8.5% sometime during 1990-91.

PEOPLE'S REPUBLIC OF CHINA CHINA'S BUSINESS CYCLE AND ITS IMPACT ON HONG KONG EXPORTS

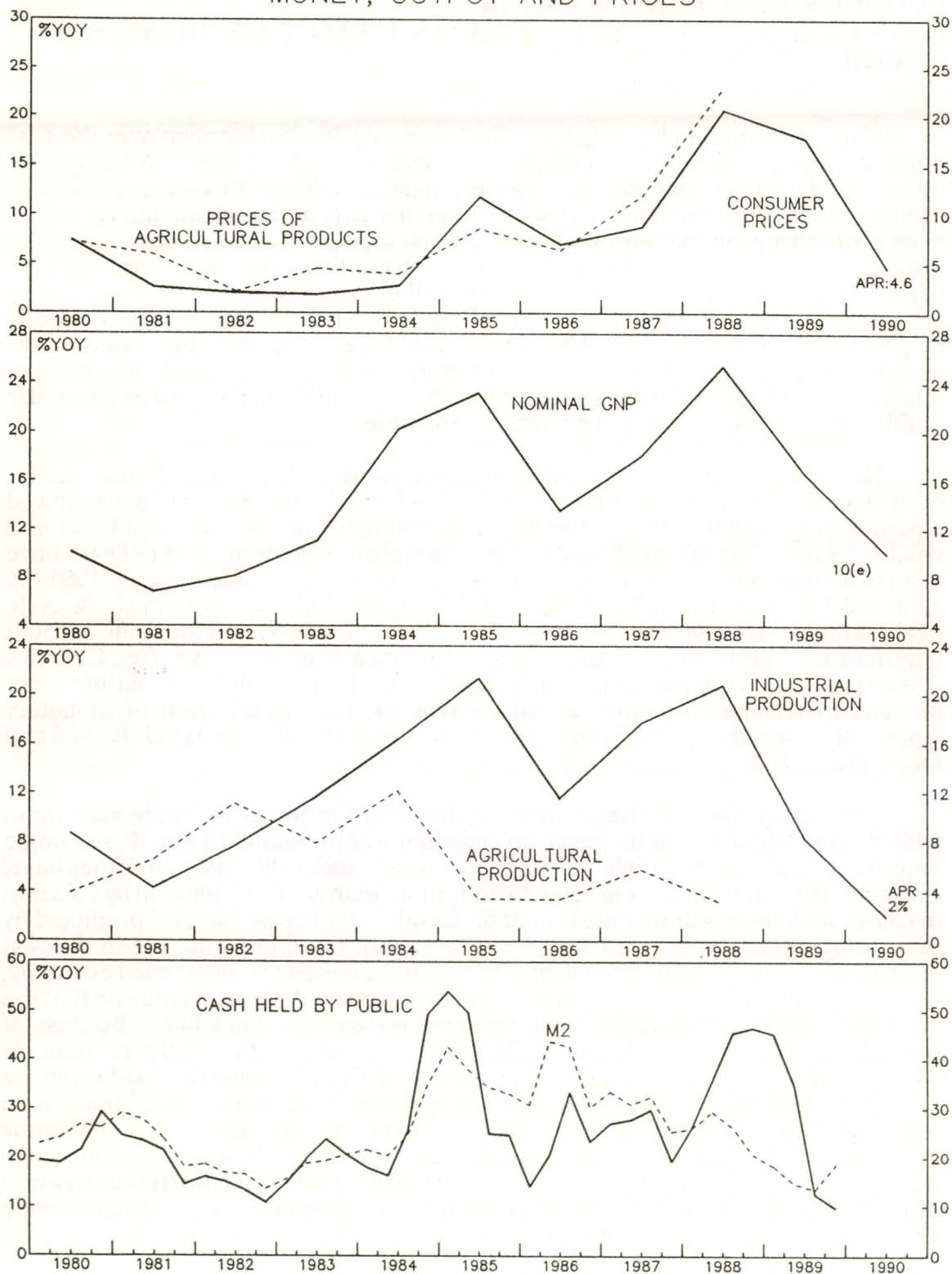
China continues to be a highly cyclical economy, its development over the past ten years of economic reform taking place in a violent stop/go pattern. Although the intention of China's communist reformers may have been to create a socialist economy able to take advantage of some of the benefits of capitalism, the result has been a socialist economy with some of the worst aspects of a mixed economy. The institutionally inter-twined nature of the fiscal process, the production process and the banking and monetary system has meant that the economy cannot be subjected to orthodox macro-economic stabilisation policies and that monetary conditions tend to be pro-cyclical (see AMM Vol. 9 No. 4). As a result, at times when the economy has over-heated the authorities have had to resort to direct controls to cool the economy, hindering the process of economic reform with the result that economic and broader political reform have tended to become inseparable.

Nevertheless, despite the unorthodox institutional and centrally-planned nature of the Chinese economy, over the past ten years China's business cycle has followed a pattern very similar to that of the traditional capitalist business cycle (albeit more volatile), even to the extent of the duration of a typical cycle (four years). There have been two major business cycle peaks (1984-85 and 1988) and three troughs (1981-82, 1986 and 1989-90). (See Charts 1 and 2.) During and following both business cycle peaks inflation became a serious problem (1985 and 1988-89) and the trade account deteriorated sharply with consequent loss of foreign exchange reserves (see Chart 3). The authorities' response was in both instances superficially orthodox in nature if not in exact mechanics - to squeeze and devalue. Following a period of monetary tightening, respectively in 1985 and 1989, the renminbi was devalued (in July 1986 and December 1989).

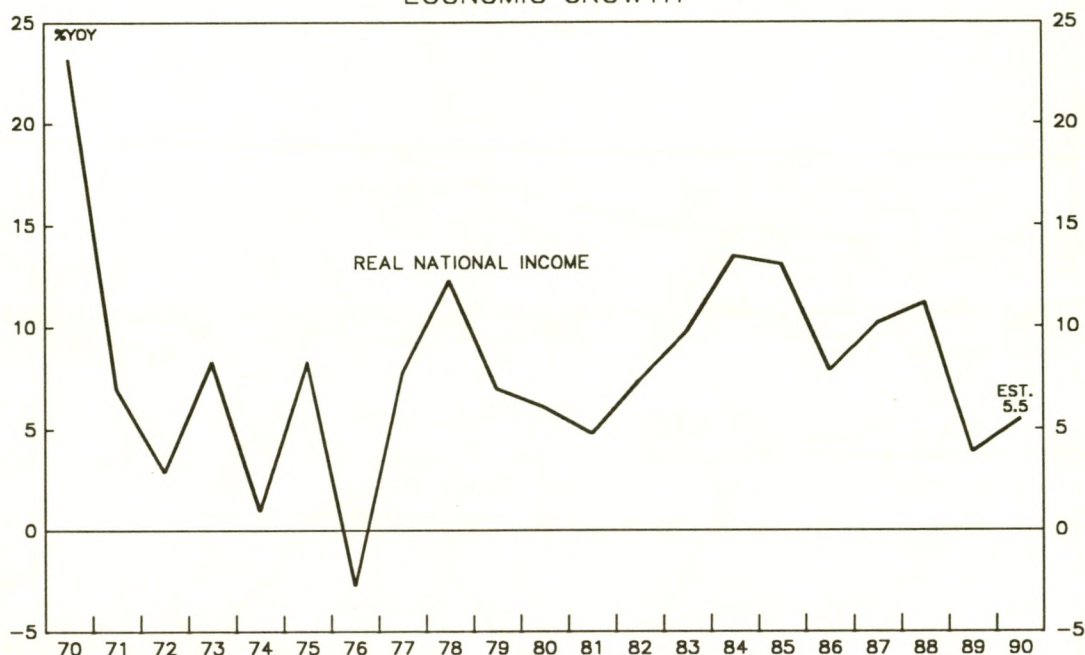
This policy was effective in arresting the deterioration of the trade account in 1985-86 (see Chart 3) and it appears as though it will be again in 1990. It should be noted that, at least if the official statistics are taken at face value, the authorities have, over time, devalued the currency significantly more than would be implied by inflation in China, with the result that the renminbi has fallen far below the level predicted by purchasing power parity (see Chart 4). This amounts to a large decline in the real exchange rate for the currency which, China being a closed and controlled economy, it is quite within the power of the authorities to engineer. Although it may be that the purchasing power parity value of the renminbi is over-stated in Chart 4 because of official under-statement of China's inflation rate, undervaluation of the renminbi is corroborated by China's national account statistics. Chart 5 shows that, following the December 1989 devaluation, US dollar per capita nominal income in China will be little higher in 1990 than it was in 1980, despite the very high rate of real economic growth over the intervening period (see Chart 2). The only way this could have occurred is through a large fall in the real value of the renminbi and this is one measure of the cost of the devaluation policy which must be set against the respectable trade account performance it has engendered.

The 'stop' phases of China's business cycle have also been successful in curtailing inflation. However as Chart 6, together with Charts 1 and 2, illustrate there is evidence

CHINA: CHART 1 MONEY, OUTPUT AND PRICES



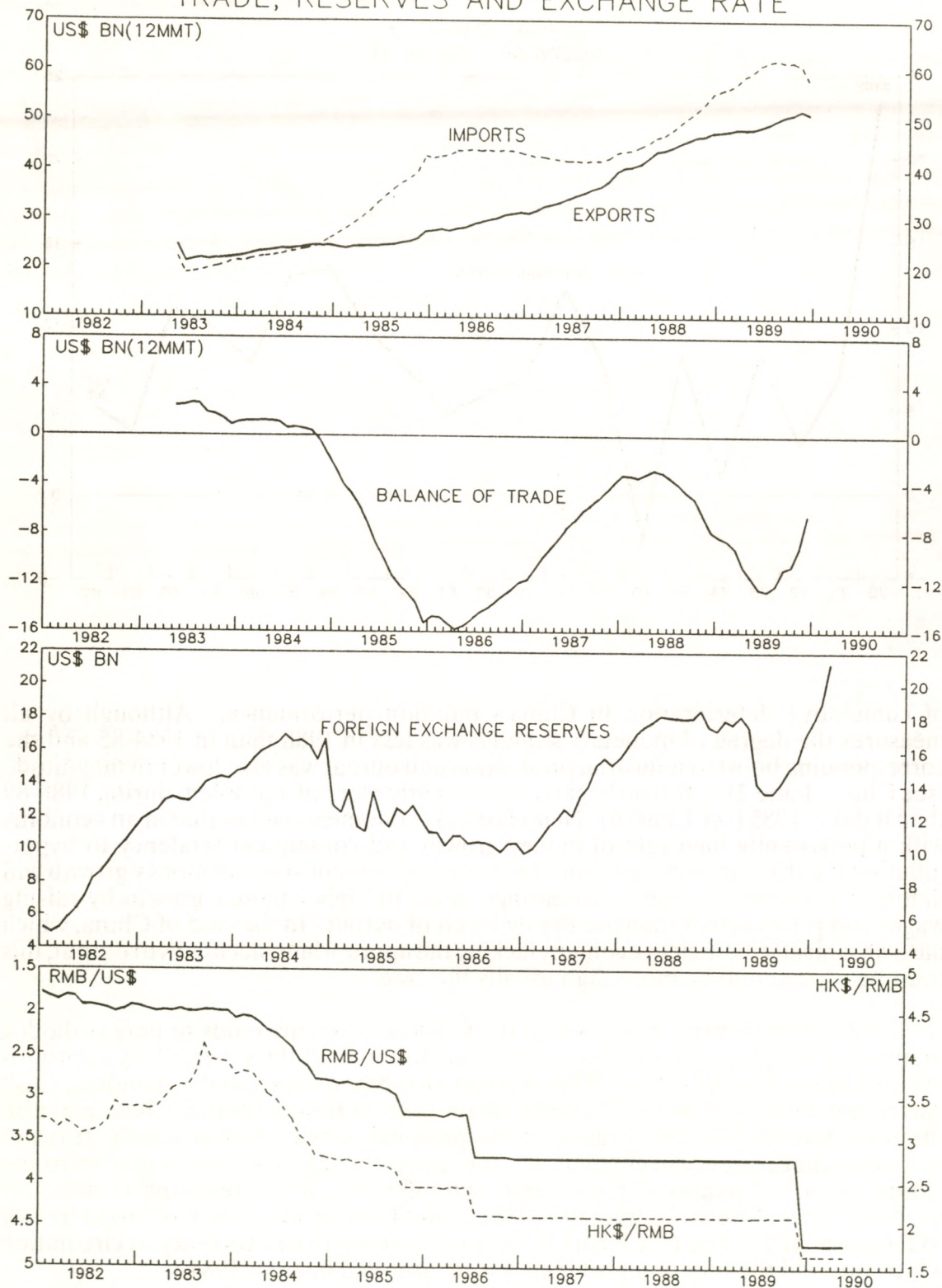
CHINA: CHART 2
ECONOMIC GROWTH



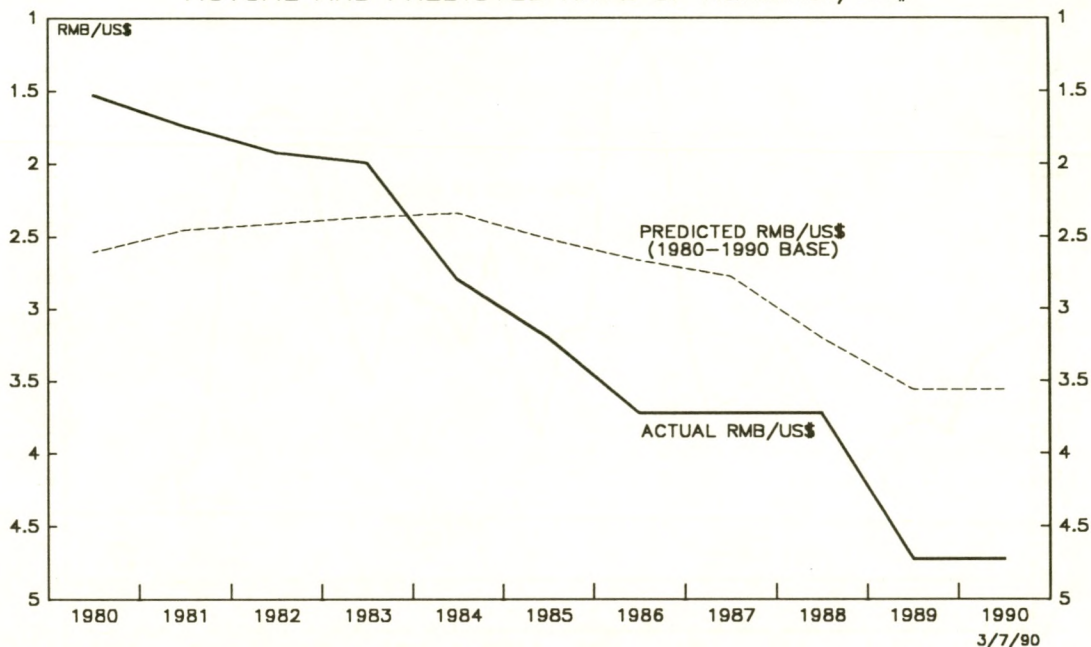
of cumulative deterioration in China's inflation performance. Although by all measures the degree of monetary stimulus was less in 1988 than in 1984-85 and the corresponding boost to industrial production and output was also lower in magnitude (see Charts 1 and 2), inflation became significantly more of a problem during 1988-89 than it did in 1985 (see Chart 6). Neo-classical economics teaches that in an economy with a persistently high rate of money growth and consequent tendency to hyperinflation the stimulus to output from each successive cyclical rise in money growth will diminish as economic agents increasingly react to higher money growth by raising wages and prices rather than increasing levels of output. In the case of China, which has a chronically inefficient economy lacking the appropriate incentives to output, this must be expected to be more than usually the case.

One of the several reasons that the Chinese economy tends to defy orthodox methods of monetary control despite the establishment of the superficially appropriate institutions (see AMM Vol. 9 No. 4) is the cash-based nature of the economy. Cash currency continues to be the favoured means of most transactions in China and also the most favoured monetary asset of the personal sector. Consequently, it is not surprising that currency in circulation is the monetary aggregate which maintains the closest empirical relationship to output and inflation. It is interesting to note, for instance, that before and during the 1988 economic boom the growth of broad money M2 was actually falling (see Chart 1). It was the sharp rise in currency in circulation which foretold the inflation problems ahead, as it had been in 1984.

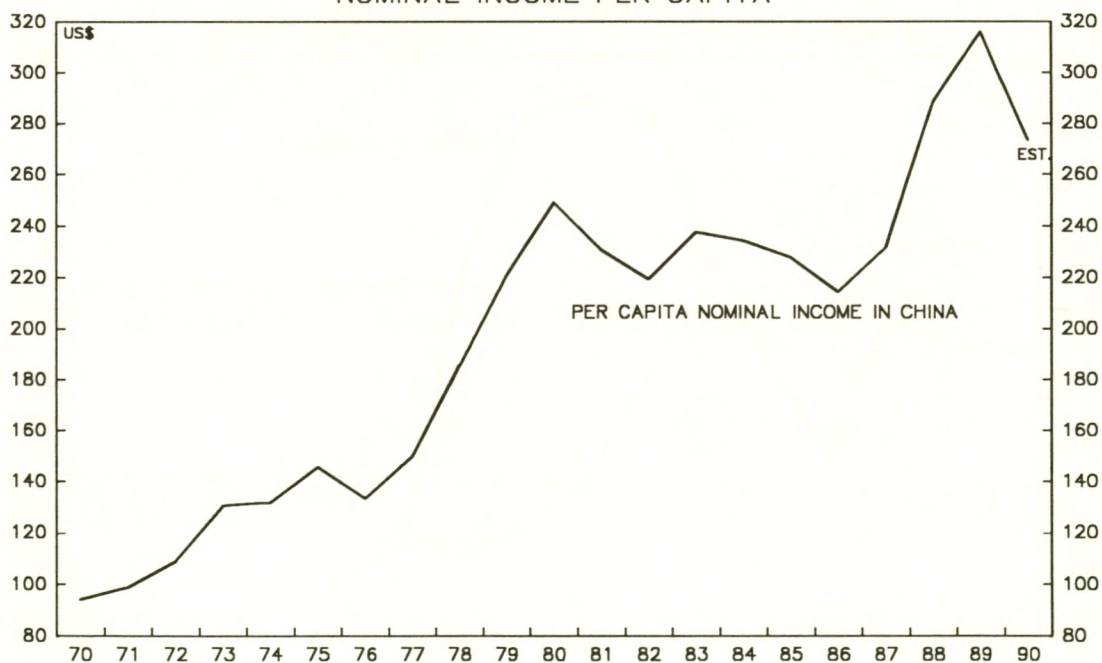
CHINA: CHART 3
TRADE, RESERVES AND EXCHANGE RATE



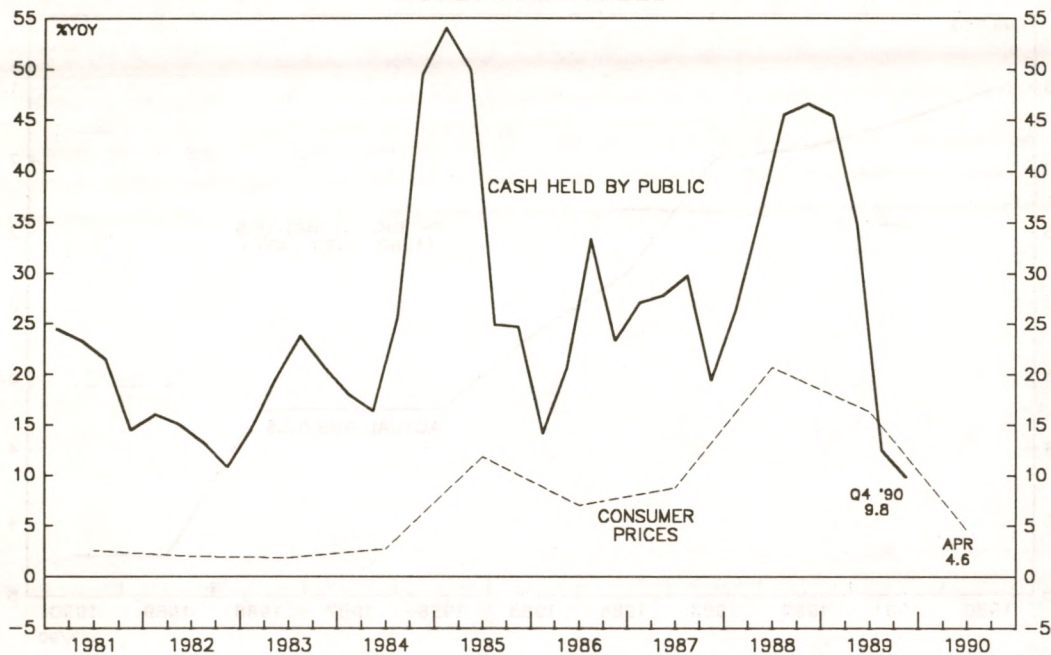
CHINA: CHART 4
ACTUAL AND PREDICTED RATE OF RENMINBI/US\$



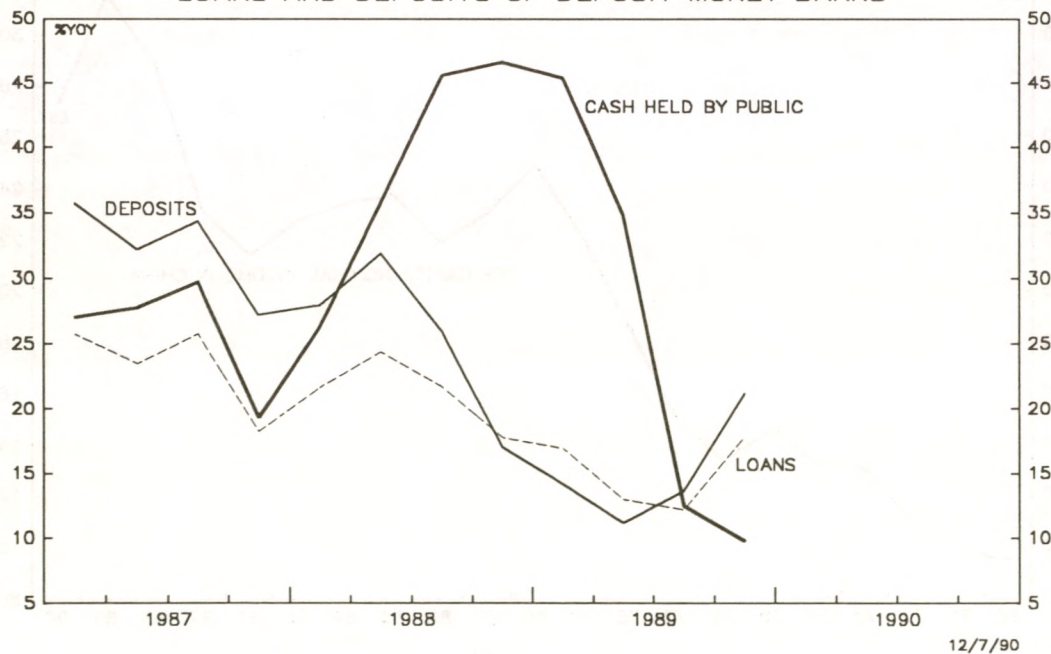
CHINA: CHART 5
NOMINAL INCOME PER CAPITA



CHINA: CHART 6
MONEY AND PRICES



CHINA: CHART 7
LOANS AND DEPOSITS OF DEPOSIT MONEY BANKS



The problem is that currency in circulation is not really within the discretionary control of the PBOC (the People's Bank of China, China's central bank). The central bank is bound to supply currency to banks which demand it, which usually occurs when bank lending growth is outstripping bank deposit growth. This appears to have been the particular problem during the 1988 monetary expansion. Bank lending growth was brought down during the second half of 1988 but the rate of growth of bank lending began to outstrip the growth of deposits, which was slowing sharply (see Chart 7). The PBOC was forced to supply banks with cash currency via extensions of credit to the banks. As a result, the growth of the monetary base remained high throughout 1988, the asset counterpart to the increase in reserve money being a sharp increase in central bank lending to the banking system (see Chart 8).

Interestingly, Chart 8 shows that central bank lending to the banks continued to grow rapidly even throughout 1989. The counterpart to the eventual slight slowing of money base growth and the much sharper decline in the growth of currency was a marked contraction in central bank net credit to the government. The main factor behind this was not any improvement in government finances - which showed a deficit similar to that in 1988 - but the introduction of a compulsory government bond purchase programme. State workers and also private entrepreneurs have been required to buy allocations of government debt averaging about 12% of annual income for each worker. A large issue of public debt bonds in June, which workers were given until the end of the year to buy, accounted for much, if not all, of the RMB12.3 billion increase in government deposits at the central bank in the latter half of the year, which in turn lay behind the fall in PBOC net credit to the government.

Because compulsory bond sales are directed at the personal sector, they have a direct contractionary impact upon currency in circulation rather than on bank reserves. Therefore during the second half of 1989 currency growth fell even as banks' reserve deposits at the PBOC rose sharply in association with the large increase in PBOC lending to the banking system. Growth of overall reserve money (currency plus banks' reserves) therefore remained high. An important element in the jump in PBOC lending, particularly evident during the fourth quarter, was financing of payments to farmers who were not prepared to accept I.O.U.s in payment for the autumn harvest as they had been required to in the previous year. Central bank emergency loans for this purpose totalled roughly RMB20 billion in the latter months of 1989. Nevertheless, although banks' reserve deposits expanded as a result, and by the end of 1989 were equal to 31% of deposits compared to 26% of deposits at the end of 1988, the authorities' direct controls over bank credit extension prevented the banks from utilising these excess reserves.

By late 1989 the collapse in currency growth and the cumulative tightening of bank credit had driven China into its worst recession since the latter days of the cultural revolution in 1976 (see Chart 2). The severity of the recession has led to a sharp drop in inflation (see Chart 6). Therefore, the interesting question is whether or not the Chinese economy will now embark on the upswing of a new business cycle. This is a particularly important issue for the economy of Hong Kong, the fortunes of which have come to depend more upon China in recent years.

The export linkages between Hong Kong's economy and China's are illus-

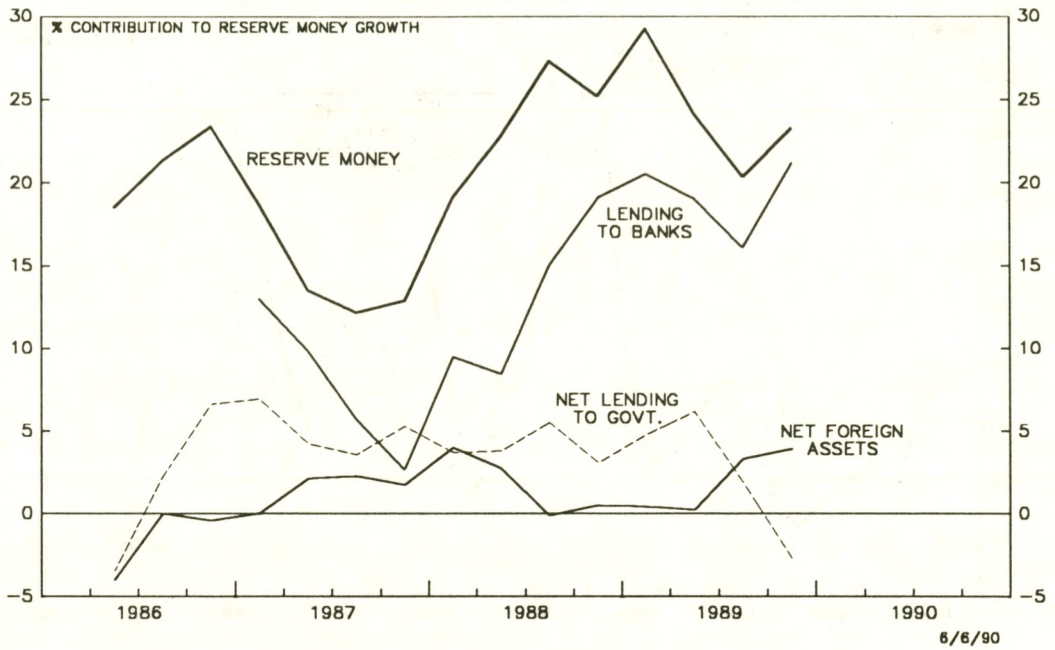
trated in Charts 9 and 10. In these charts cash currency in circulation serves as a gauge of China's business cycle, partly because the data is more frequent, and timely, and probably more reliable than data concerning the real economy. Data for industrial production (Chart 1) and GNP (Charts 1 and 2) also indicate the same general pattern of the business cycle in China.

Chart 9 shows that the performance of Hong Kong's re-exports to China has been strongly influenced by the course of China's business cycle. During 1988 as Hong Kong's overall exports were faltering, the territory's re-exports to China showed rapid growth rates of 50%-80%, as the mainland's booming economy drew in imports. Recently, following weakness in late 1989, Hong Kong's re-exports to China have begun to pick up again.

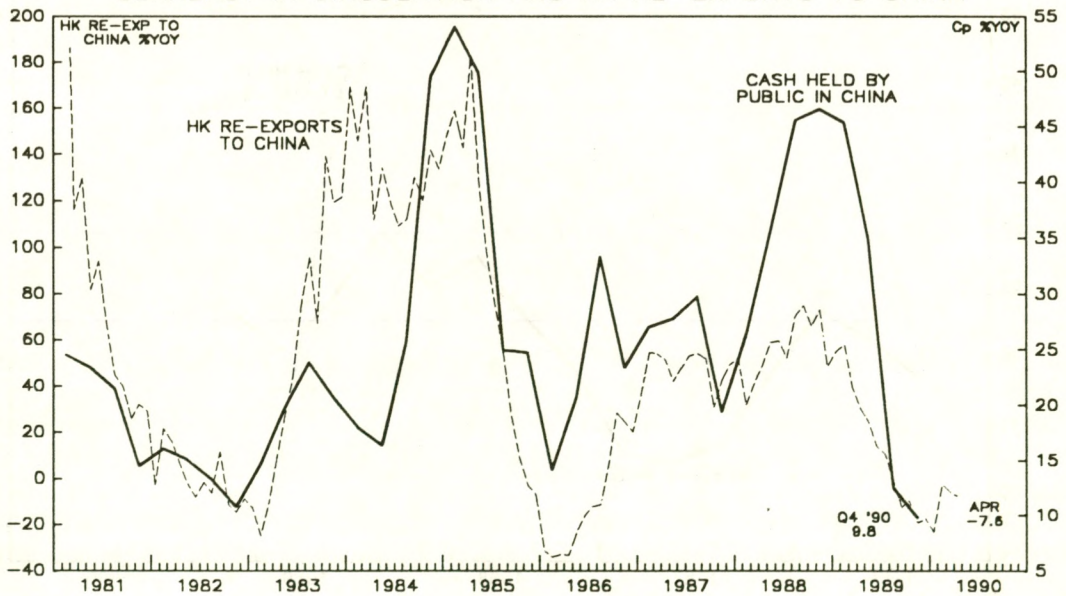
The relationship between the performance of the Chinese economy and Hong Kong's domestic exports to the mainland is much less clear. A large part of the reason for this might lie in the high proportion of domestic exports which comprise semi-finished products and components sent from Hong Kong companies to their manufacturing operations in south China for assembly or further processing (see AMM Vol. 13 No. 1). In this case the final manufactured products are destined for export from China and therefore, arguably, the original domestic exports of components and semi-finished goods from Hong Kong are motivated more by the strength of demand in the world as a whole rather than domestic demand within China itself. One very approximate way around this problem is to consider the relative growth of domestic exports to China from Hong Kong rather than the absolute growth rate (ie the growth of Hong Kong's domestic exports to China minus the growth of Hong Kong's total domestic exports). On the assumption that Hong Kong's exports of articles to China for further processing destined for ultimate export elsewhere grow at a similar rate to Hong Kong's overall domestic exports (both reflecting general world demand conditions), relatively rapid growth of domestic exports to China should indicate relative strength of domestic demand within China. Chart 10 shows that in the latter half of 1988 and beginning of 1989 Hong Kong's domestic exports to China were growing at a rate close to 40% in excess of Hong Kong's overall domestic export growth rate, supporting Hong Kong's exports at a time when domestic export growth to the USA had dropped to zero. By later in 1989, however, domestic exports to China were equally as sluggish as Hong Kong's domestic exports to elsewhere.

This year senior Chinese officials have made statements indicating that the policy of austerity is being eased. In March and April the PBOC reduced interest rates on bank loans and deposits by 1.26%. The PBOC governor also announced that the central bank would extend RMB55 billion of new loans to the banking system during 1990, compared with an originally planned RMB30 billion, and that the banks themselves would be allowed to increase new lending by 10%. If implemented, a RMB55 billion increase in PBOC lending to the banks would contribute over eleven percentage points to the growth of the monetary base during the year, lower than in 1989 but higher than in 1987 (Chart 8), and a comparatively large increase following the rapid growth in central bank lending which has already taken place in the final quarter of 1989. Such an increase in PBOC lending is unlikely to allow any significant reduction in the rate of growth of reserve money when the contributions to the growth of reserve money from net lending to the government and foreign assets are almost certain to become more positive (see Chart 8).

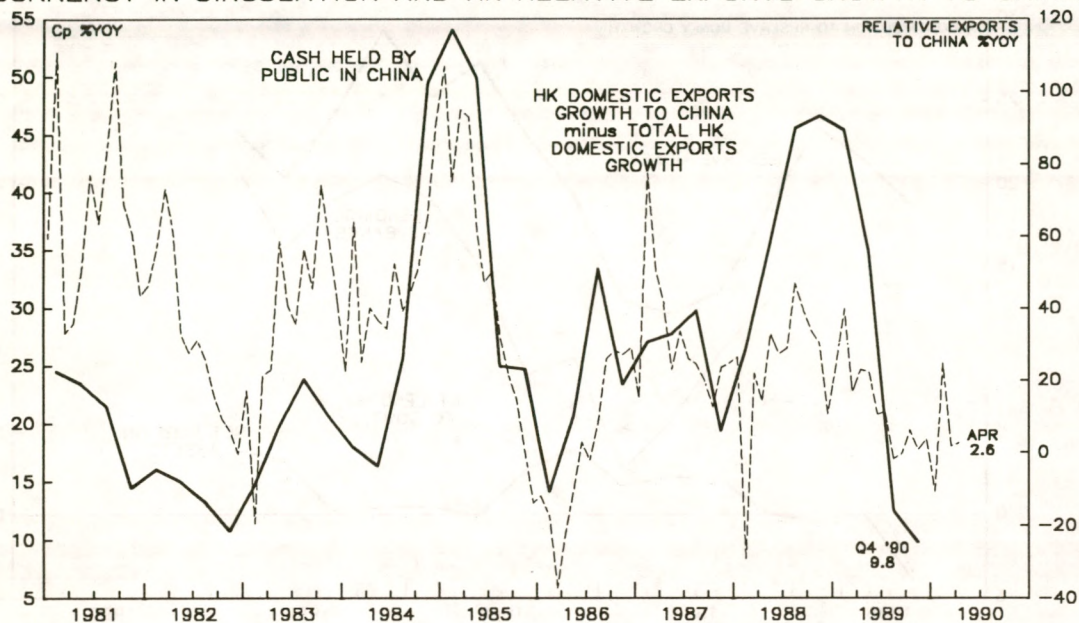
CHINA: CHART 8
MONETARY BASE GROWTH AND CONTRIBUTION



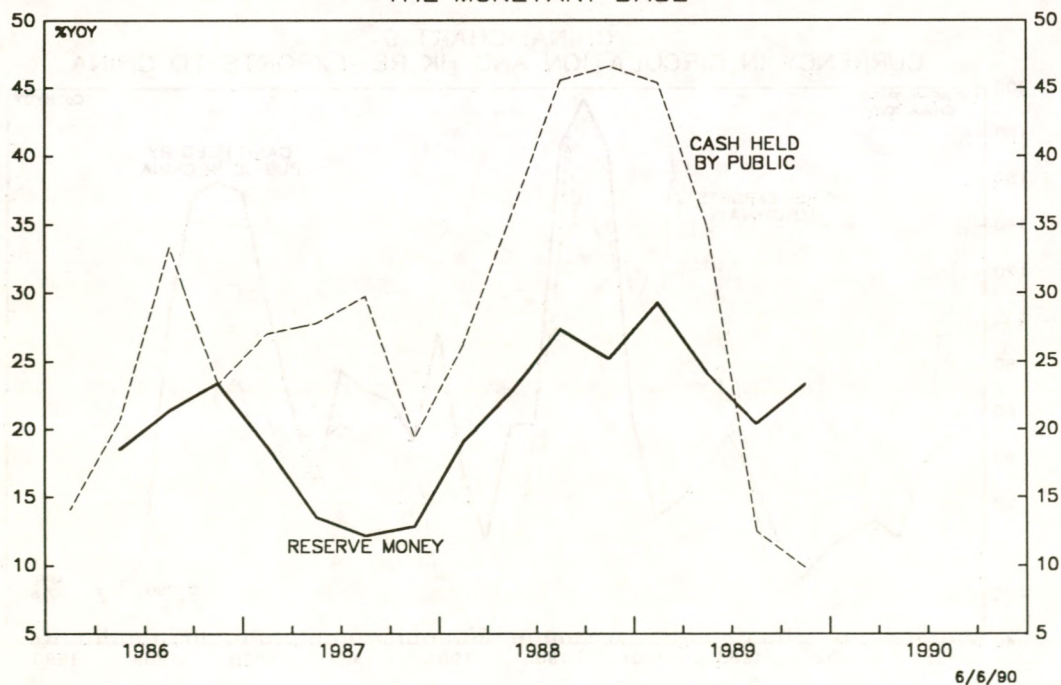
CHINA: CHART 9
CURRENCY IN CIRCULATION AND HK RE-EXPORTS TO CHINA



CHINA: CHART 10
CURRENCY IN CIRCULATION AND HK RELATIVE EXPORTS GROWTH TO CHINA

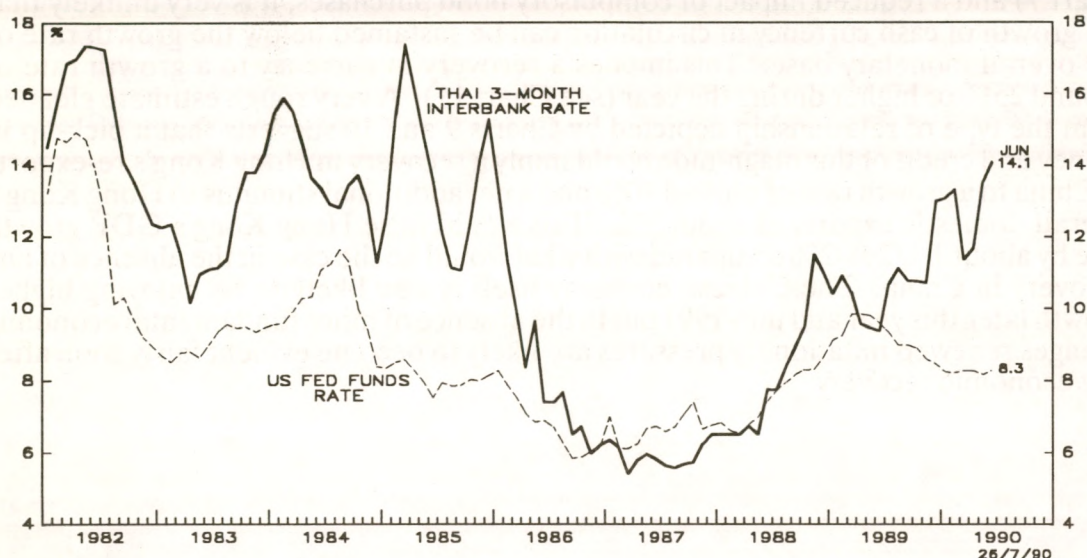


CHINA: CHART 11
THE MONETARY BASE



FORECAST: Most importantly, when taken together with the permitted increase in new bank loans (implying year-on-year growth of outstanding deposit money bank loans continuing at the 1989 fourth quarter pace of around 17%-20% during 1990), the cut in bank deposit rates likely implying some slowdown in deposit formation (see Chart 7) and a reduced impact of compulsory bond purchases, it is very unlikely that the growth of cash currency in circulation can be sustained below the growth rate of the overall monetary base. This implies a recovery in currency to a growth rate of around 25% or higher during the year (see Chart 11). A very rough estimate gleaned from the type of relationship depicted by Charts 9 and 10 suggests that a pick-up in money and credit of this magnitude could imply a recovery in Hong Kong's re-exports to China to a growth rate of around 40% and a net additional stimulus to Hong Kong's overall domestic exports of about 5%. This would raise Hong Kong's GDP growth rate by about 1 1/2%-2% compared with what would be the case in the absence of any recovery in China. The Chinese economy itself is also likely to be enjoying higher growth later this year and into 1991 but in the absence of more fundamental economic changes renewed inflationary pressures are likely to become evident fairly soon after any economic recovery.

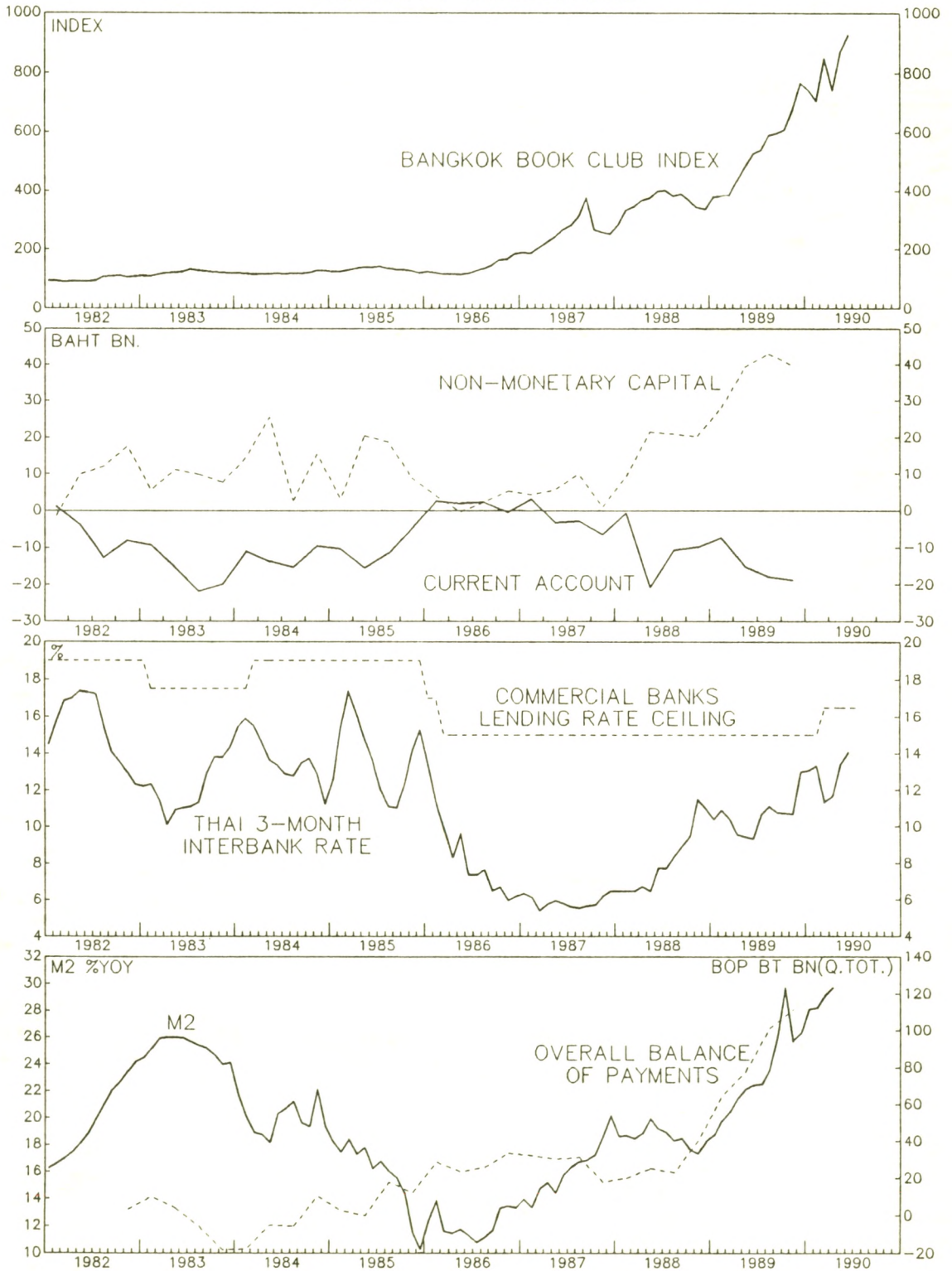
THAILAND : LIBERALISATION REDUCES CENTRAL BANK'S CONTROL OVER INTEREST RATES



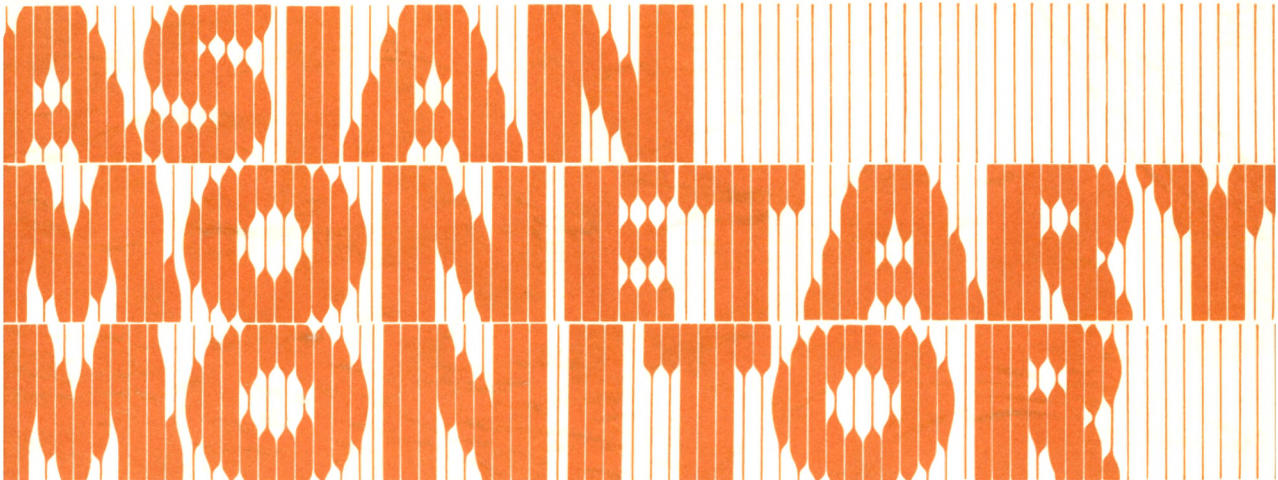
In May the Thai authorities announced their acceptance of Article 8 of the IMF, involving a commitment to remove exchange controls and move towards a freely convertible currency. The initial stage of the liberalisation included significant relaxation of restrictions governing foreign investors' repatriation of the proceeds from sales of Thai equity, residents' repayment of principal and interest on foreign borrowings, remittances of funds abroad by Thai residents, and purchases of foreign currency by tourists and travellers etc. It was also announced that exchange controls would be reduced further by September.

As long as the Bank of Thailand continues to exercise close management of the exchange rate, liberalisation of exchange controls will further reduce its ability to influence independently the level of domestic interest rates. In practice, the recent liberalisations may make only a small difference in this respect as the economy already had the monetary characteristics of an open economy, because Thai resident entities have for a long time been allowed to borrow foreign currencies (see AMM Vol. 6 No. 4, AMM Vol. 14 No. 2). Thai interest rates are likely to be drawn towards the level of US interest rates and the efforts of the authorities to restrain the build-up of liquidity, most recently through increased issuance of government debt, are likely to prove futile. Concerned to stem the burgeoning capital inflow, the finance minister has advanced the possibility of increasing the withholding tax on foreign borrowing (see AMM Vol. 14 No. 2). Although this, and other mooted methods of directly influencing capital inflow, might be effective, they clearly would undermine the trend towards liberalisation and would be counter-productive in this respect. The 'free market' solution to the massive capital inflow and the over-heating of Thailand's economy would instead be for the authorities to revalue the Baht or allow it to float. The alternative is simply to allow higher inflation to gradually erode Thailand's competitiveness, ultimately eliminating the overall balance of payments surplus.

THAILAND LIQUIDITY INDICATORS







CONTENTS

	Page
REGIONAL SURVEY	
Contrasting Stages in the Business Cycle by Simon Ogus	1
HONG KONG	
Banking in Hong Kong : Regulation, Stability, and the Role of Money Market Mutual Funds by Randall Kroszner	16
CHINA	
An Estimate of HK\$ Currency Circulating in Guangdong Province by John Greenwood	37





**Asian Monetary Monitor is a
publication of the G.T. group of companies**



John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Simon L. Ogus
Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 12964, Hong Kong.

ASIAN MONETARY MONITOR

July - August, 1990

Vol.14 No.4

REGIONAL SURVEY CONTRASTING STAGES IN THE BUSINESS CYCLE

Prior to the outbreak of the Gulf crisis the prospects for continuing world growth were being enhanced by increasing regional economic integration. The move towards a single European market in 1992, the Free Trade Agreement between the US and Canada, and the increased economic integration of the East Asian region were stimulating trade and investment. Since the recession of the early 1980s, the major economies of the world have enjoyed a period of virtually uninterrupted economic growth, a post war record. Since 1989, however, two separate patterns of growth have emerged. The Anglo-Saxon economies of North America, Australia and the UK have experienced a relative slowdown in their growth rates, as real and nominal demand levels have fallen in response to tightening monetary policies. In contrast, Japan and Western Europe have continued to forge ahead with little sign of a real slowdown.

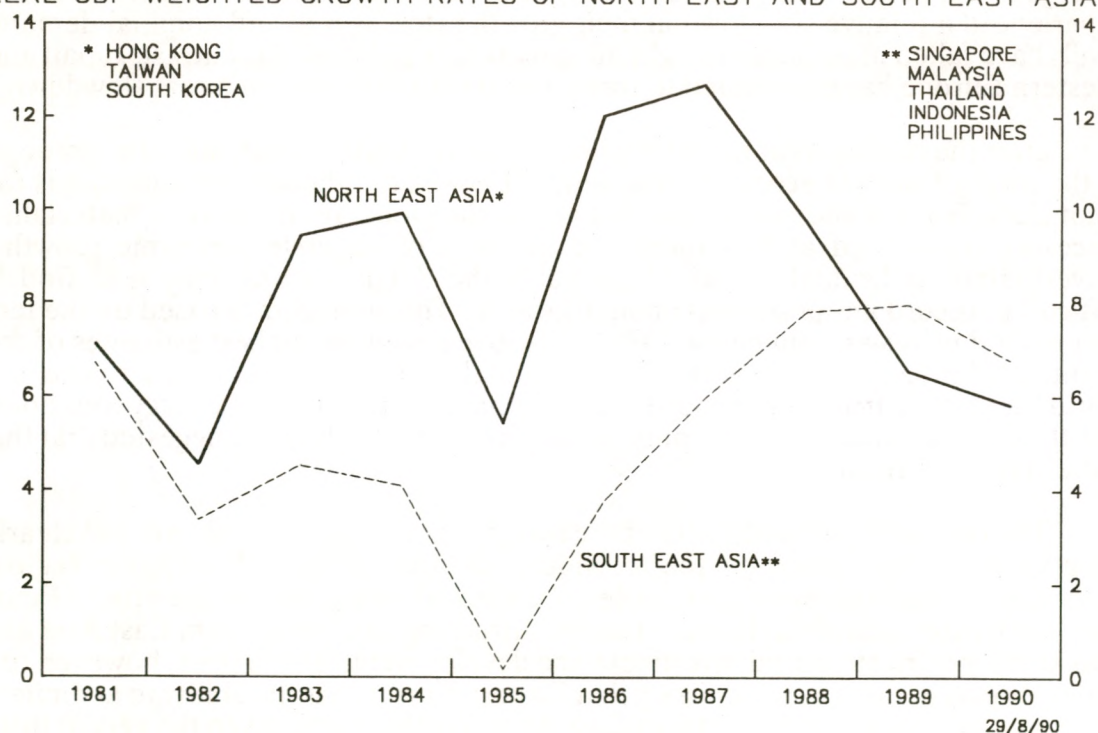
Over the coming months, the implications of the Gulf crisis should filter through in the form of weaker economic indicators. However, although the outcome is far from clear, fears of recession occurring across the globe are unlikely to materialise (recession is defined as two successive quarters of negative economic growth). Nevertheless, individual economies, notably the Anglo-Saxons, may well find it difficult to record any positive economic growth. This optimism is based on the fact that real oil prices are still below 1985 levels, given even the highest estimates of the eventual oil price, and that there exist substantial supply reserves. Furthermore, the world has learned from previous oil shocks and has become far more energy conscious. It is thus less dependent on oil inputs, although recent trends have suggested that this pattern is again reversing.

The contrasting growth paths of the two groups of economies above, will clearly have varying implications for the individual economies of the East Asian region, according to their relative dependence on trade with one group or the other. Fears have been expressed about Eastern Europe attracting funds away from East Asia and thus slowing infra-structural investment and development. These fears, however, are probably exaggerated as it is unlikely that Eastern Europe has the ability to assimilate funds at a rate that is detrimental to East Asia. Furthermore, given the recent third world experience of investors, it seems unlikely that they will repeat previous levels of exposure to high risk debt.

Therefore, given that the world trend of positive growth is set to continue, albeit at varying rates from region to region, and at a lower level than prior to the Gulf crisis, the outlook for economic growth in the East Asian region is positive. However, the constituent economies of the region are at contrasting stages in their business cycles so the outcomes will be varied.

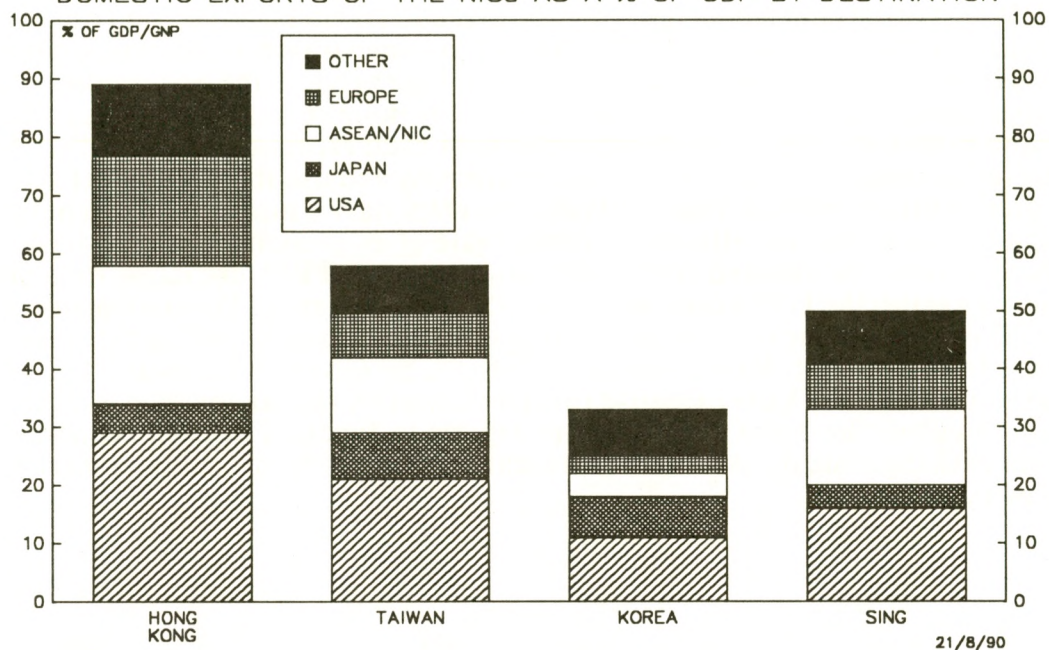
Chart 1 below contrasts the pattern of GDP growth in North East and South East Asia since the oil shock of 1979-80. As can be seen, the Newly Industrialised Countries (NICs) of North East Asia recovered strongly and grew rapidly over 1982-83. They then experienced a downturn as exports fell in line with a strengthening US\$ in 1984-85, but this decline was reversed as the US\$ once again weakened in 1985-86. Thereafter, they have once again grown very strongly, peaking in 1987, but have subsequently slowed. In contrast, the South East Asian economies of Singapore (also an NIC) and the rest of the ASEAN bloc (Thailand, Malaysia, Indonesia and the Philippines) have experienced lower relative rates of GDP growth, with the notable exception of 1989. The recovery of these economies from the 1979-80 oil shock was much weaker and the slowdown over 1984-85 far more severe, especially in Singapore and Malaysia where recession resulted. Subsequently, the economies of South East Asia took longer to emerge from this slowdown, but growth rates continued to rise even after 1987. However, the signs are that these economies are now also reaching a mature stage in the business cycle and will probably grow relatively more slowly in 1990 and 1991.

REGIONAL SURVEY: CHART 1
REAL GDP WEIGHTED GROWTH RATES OF NORTH EAST AND SOUTH EAST ASIA

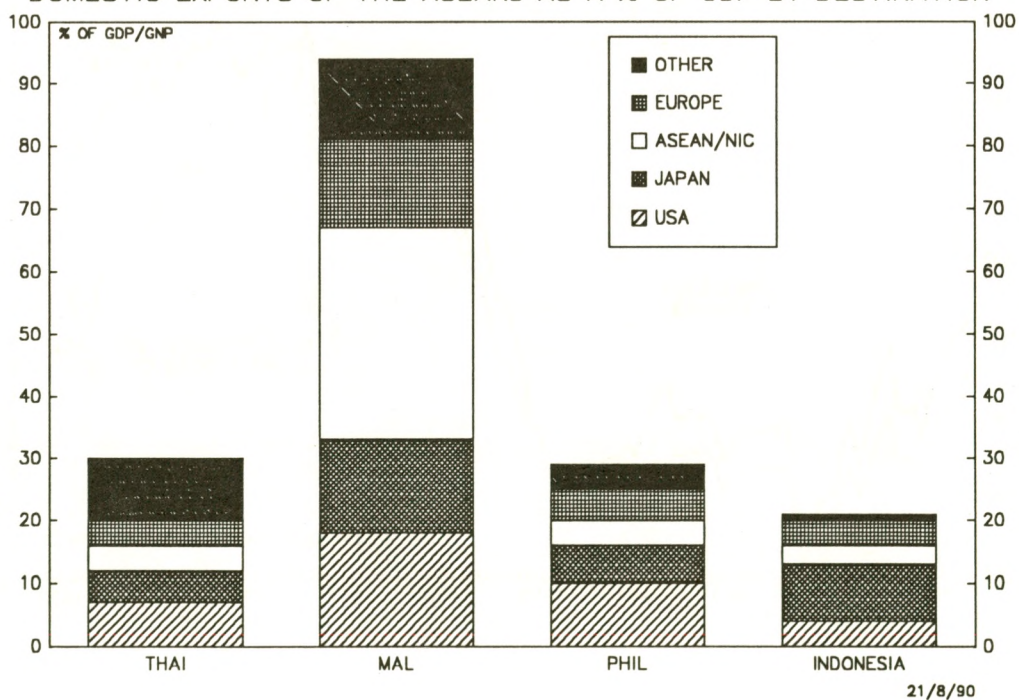


All the economies of the region are export driven (domestic exports account for an average of 51% of GDP), and therefore very vulnerable to a slowdown in world demand. The region is particularly dependent on intra-regional trade (averaging 12% of GDP, excluding Japan) and trade with the US (averaging 16% of GDP). Trade with Japan is also prominent in a number of countries. The breakdown of these trade figures for each country is represented graphically in Charts 2 and 3.

REGIONAL SURVEY: CHART 2
DOMESTIC EXPORTS OF THE NICs AS A % OF GDP BY DESTINATION

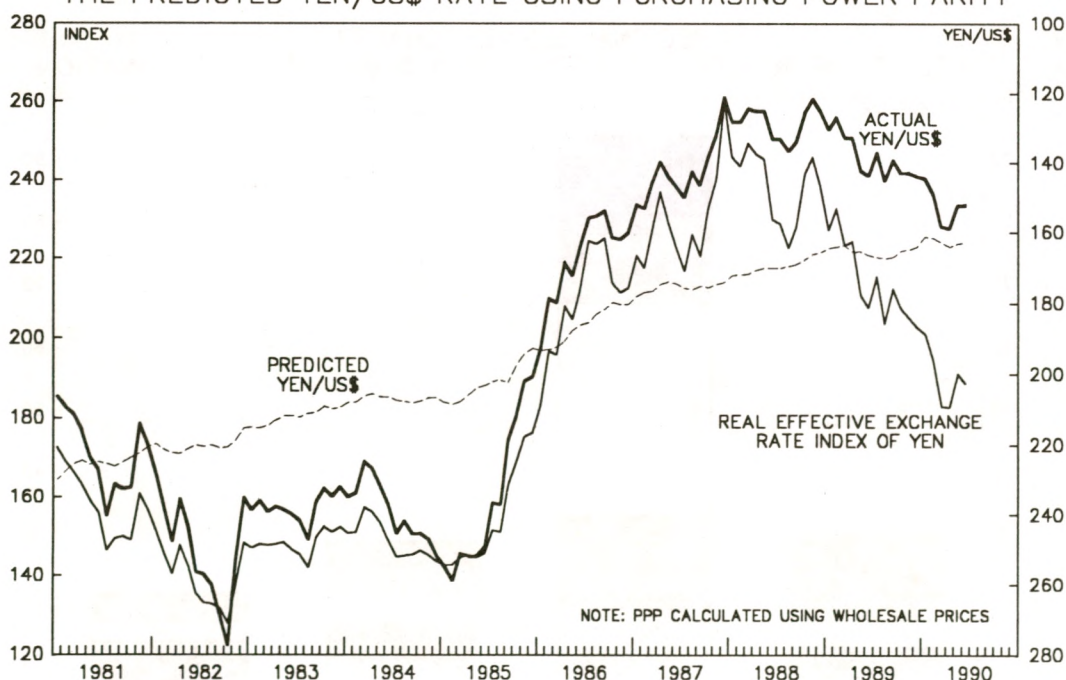


REGIONAL SURVEY: CHART 3
DOMESTIC EXPORTS OF THE ASEANS AS A % OF GDP BY DESTINATION

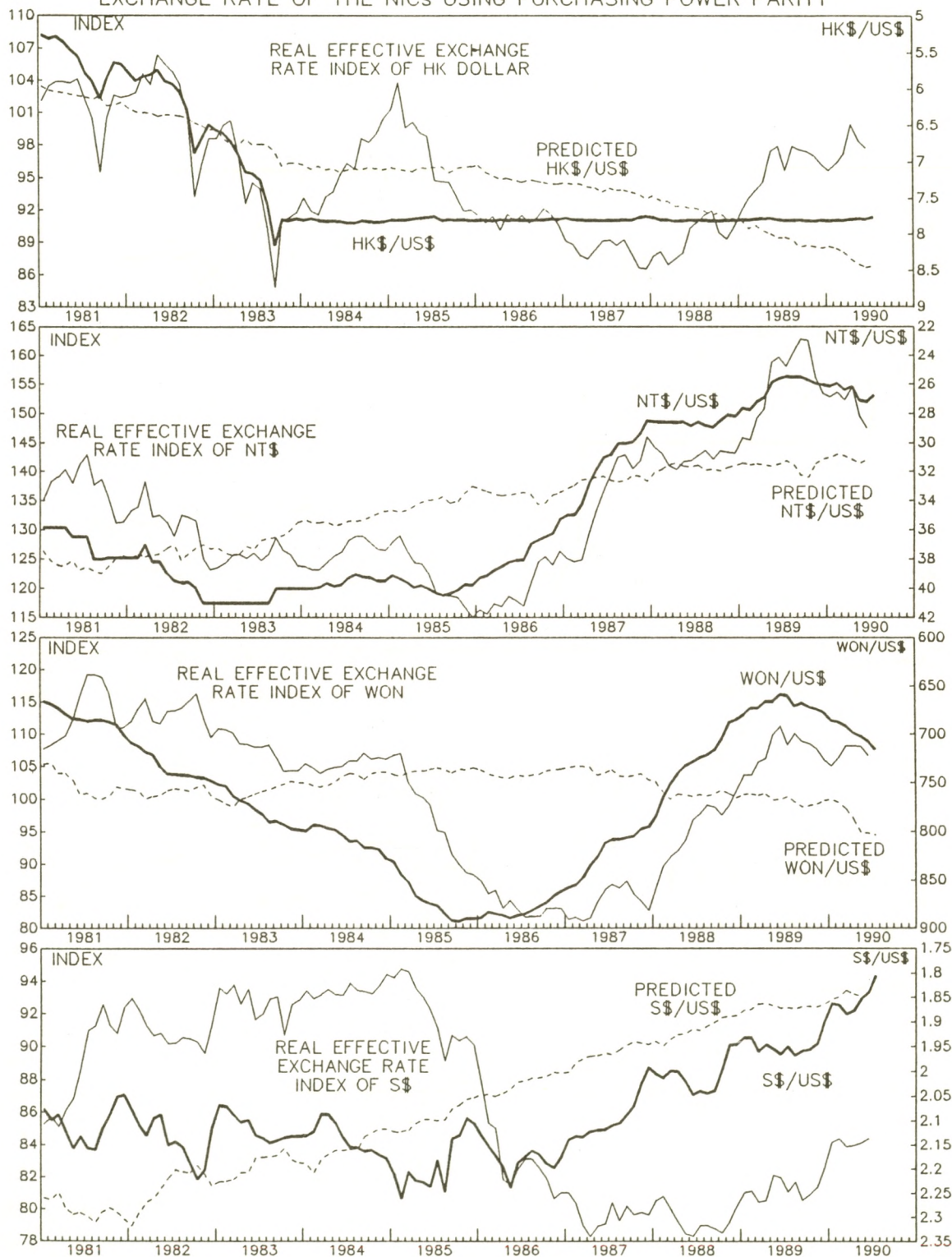


Whilst world demand was growing and exceeded regional production capacities, the relative competitiveness of the East Asian economies was comparatively unimportant. The basic tenet of competitive advantage, either produce the best product or the cheapest, should always hold, but this becomes even more important as supply and demand conditions tend towards equilibrium, or even excess supply. It is therefore revealing to construct measures of competitiveness and use them to reflect current and predict future levels of trade. This analysis employs two measures of competitiveness: an index of the real effective exchange rate of an economy against a basket of currencies, and the implied purchasing power parity (PPP) exchange rate of an economy against the US\$, versus its actual US\$ exchange rate. The comparison with the US\$ is relevant due to its use as a surrogate world currency and the high levels of exports from the East Asian economies to the US. Given the current "fair" PPP valuation of the US\$/YEN exchange rate (see Chart 4), this comparison is also valid for those economies more dependent on exports to Japan. For each economy the various exchange rate measures are represented in Charts 5 and 6 and summarised in Tables 1 and 2.

REGIONAL SURVEY: CHART 4
JAPAN: THE REAL EFFECTIVE EXCHANGE RATE OF THE YEN AND
THE PREDICTED YEN/US\$ RATE USING PURCHASING POWER PARITY



REGIONAL SURVEY: CHART 5
THE REAL EFFECTIVE EXCHANGE RATE AND THE PREDICTED US\$
EXCHANGE RATE OF THE NICs USING PURCHASING POWER PARITY



REGIONAL SURVEY: CHART 6
THE REAL EFFECTIVE EXCHANGE RATE AND THE PREDICTED US\$
EXCHANGE RATE OF THE ASEANS USING PURCHASING POWER PARITY

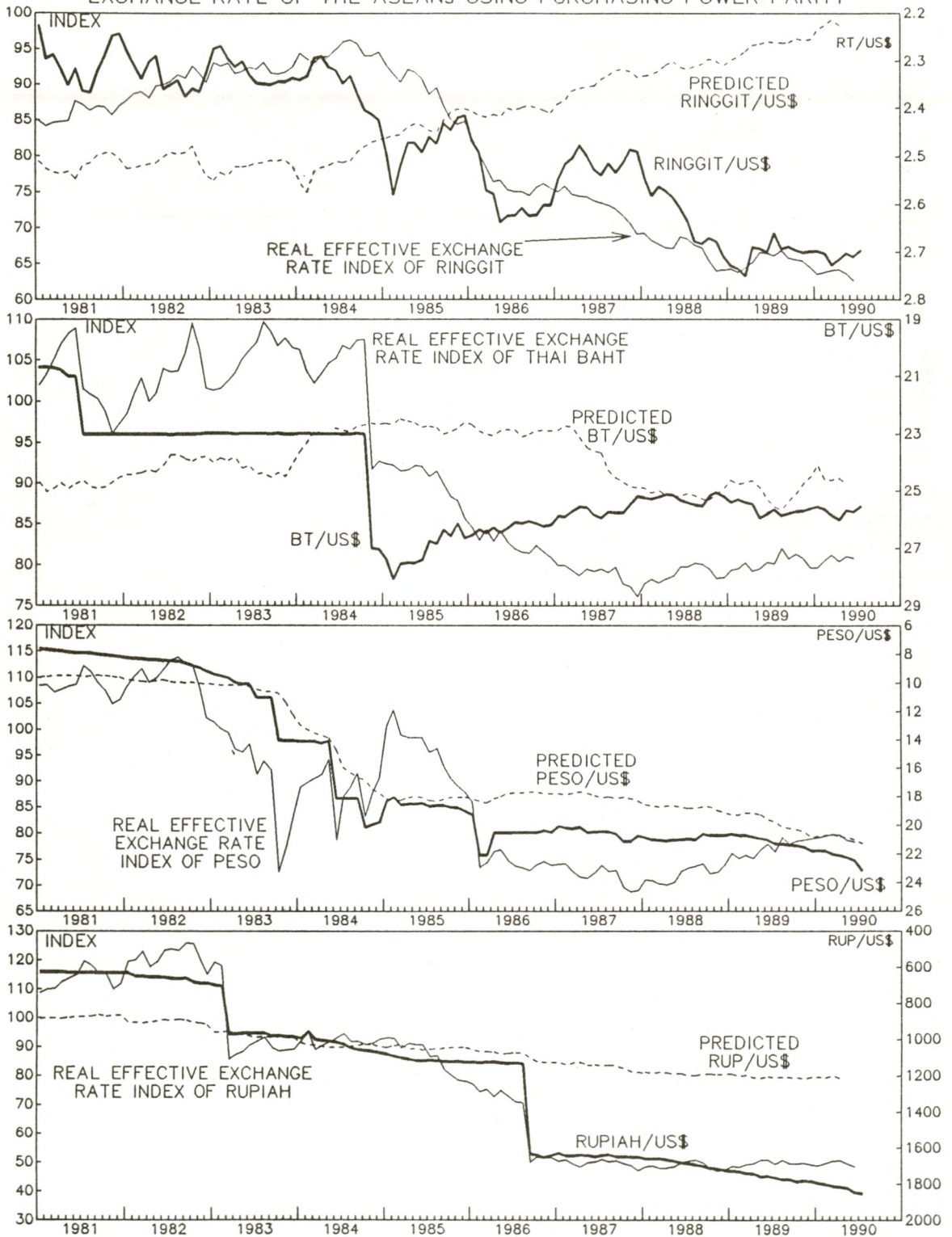


Table 1 PPP Valuation

	US\$	HK\$	NT\$	Won	Baht	S\$	Rin.	Peso	Rupiah
US\$	-	U →	U* →	U* →	O ↓	F ↓	O* →	O →	O* ↑
HK\$	O →	-	U →	U →	O* ↓	O ↓	O* →	O* →	O* ↑
NT\$	O* →	O →	-	F →	O* ↓	O* ↓	O* →	O* →	O* ↑
Won	O* →	O →	F →	-	O* ↓	O* ↓	O* →	O* →	O* ↑
Baht	U ↑	U* ↑	U* ↑	U* ↑	-	U →	O ↑	F ↑	O ↑
S\$	F ↑	U ↑	U* ↑	U* ↑	O →	-	O* ↑	O ↓	O* ↑
Rin.	U* →	U* →	U* →	U* →	U ↓	U* ↓	-	U →	F ↓
Peso	U →	U* →	U* →	U* →	F ↓	U ↓	O →	-	O ↓
Rup.	U* ↓	U* ↓	U* ↓	U* ↓	U ↓	U* ↓	F ↓	U ↓	-

Key	Current	Trend
	O = Overvalued	↑ Appreciating
	F = Fairly valued	→ Constant
	U = Undervalued	↓ Depreciating
	* significant	

Table 2 Real Effective Exchange Rate Valuation

	HK\$	NT\$	Won	Baht	S\$	Rin.	Peso	Rupiah
1990	↑/→	↓	→	→	↑/→	→	→	→
1989	↑*	↑*	↑*	→	↑	→	↑	→

Key	
	↑ Less competitive
	→ Constant
	↓ More competitive
	* significant

To help read Table 1 we give as an example the East Asian currencies against the US\$. Initially select the first column in the table, the US\$. Reading down, the HK\$, NT\$ and Korean Won are all overvalued against the US\$, the NT\$ and Korean Won significantly so. These overvaluations are likely to continue. The Baht is undervalued but appreciating, the Singapore \$ is fairly valued but appreciating and the Ringgit is significantly undervalued and likely to remain so. The Peso is undervalued and likely to remain so and finally the Rupiah is significantly undervalued and depreciating.

An analysis of the tables shows that the NT\$ and the Korean Won are overvalued against every other currency and experienced a marked loss of competitiveness over 1989. However, the signs are that these trends may have reversed since the final quarter of 1989, although in the case of Korea, this reversal may be temporary. The HK\$ is similarly overvalued but to a lesser extent than its North East Asian counterparts.

In contrast, the Indonesian Rupiah and the Malaysian Ringgit are both significantly undervalued, and have been so over the last five years. The Rupiah in particular is continuing to fall in value although current events may well reverse this trend. The Thai Baht and the Philippine Peso are also undervalued. The lifting of exchange controls in Thailand has resulted in the Baht starting to appreciate, whilst the Peso, although depreciating, has remained undervalued against its PPP value, reflecting rising inflation. Finally the Singapore \$ has been steadily appreciating since 1989 and is now fairly valued. However, the trend still appears to be upwards suggesting a further erosion in competitiveness.

Table 3 gives details of the contribution of trade growth to the total growth of an economy during 1989. It is revealing to note that the correlation between the rate of growth of exports and total GDP growth is over 70%.

TABLE 3: CONTRIBUTION OF TRADE GROWTH TO TOTAL GDP GROWTH (1989)

Growth Rate	Hongkong	Taiwan	Korea	Thailand	Singapore	Malaysia	Indonesia	Philippines
Exports	0.1%	3.1%	0.8%	8.3%	5.0%	21.4%	3.7%	3.2%
Imports	11.9%	4.5%	6.3%	11.1%	18.0%	34.6%	3.6%	10.7%
Trade Balance	-11.8%	-1.4%	-5.5%	-2.8%	-13.0%	-13.2%	0.1%	-7.5%
Re-Export	24.6%	-	-	-	11.7%	-	-	-
Domestic Demand	-10.3%	8.8%	12.2%	13.6%	10.5%	21.7%	6.1%	13.1%
GDP	2.5%	7.4%	6.7%	10.8%	9.2%	8.5%	6.2%	5.6%

The rate of economic growth depends on the rate of growth of each of the components of national income -- consumption, investment, government expenditure and trade.

$$\Delta Y = \Delta C + \Delta I + \Delta G + \Delta (X - M)$$

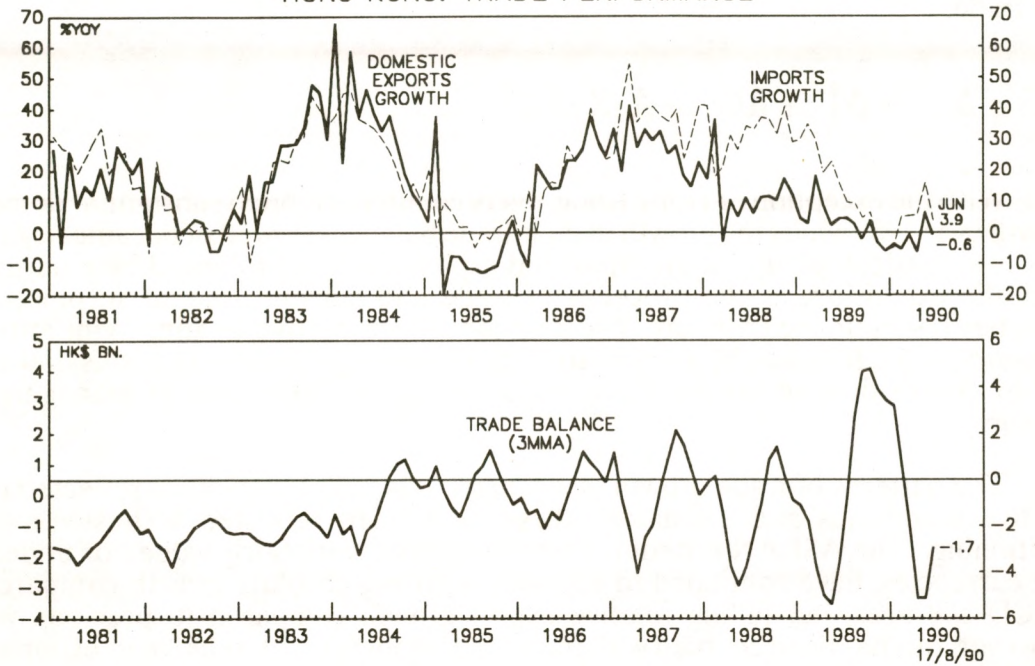
With the exception of Hong Kong, every country exhibited substantial domestic growth over 1989 whilst the growth in their trade balances slowed or became negative. This is a classical feature of an export-led expansion being followed by a period of domestic expansion, as the proceeds of trade and current account surpluses are ploughed back into the economy. The ultimate outcome is overheating as inflationary pressures build, followed by a downturn in the economy. The extent of this downturn will of course depend on the skills of the monetary authorities in managing the economy.

The patterns of trade growth (see Charts 7-14) have in general reflected competitive tendencies and ultimately, these have been reflected in business cycle positioning. The ASEAN economies and Singapore, with fairly valued or undervalued currencies, have continued to experience strong absolute growth compared to OECD averages, but falling relative export growth compared to previous years. However, this has been coupled with increased import growth relative to exports and thus declining trade balances. Nevertheless, in absolute terms, both import and export growth levels are still falling, and look set to continue to do so. Malaysia, where 94% of GDP is comprised of exports is particularly vulnerable to a downturn in world trade although its relatively low exposure to the US should cushion some of the impact.

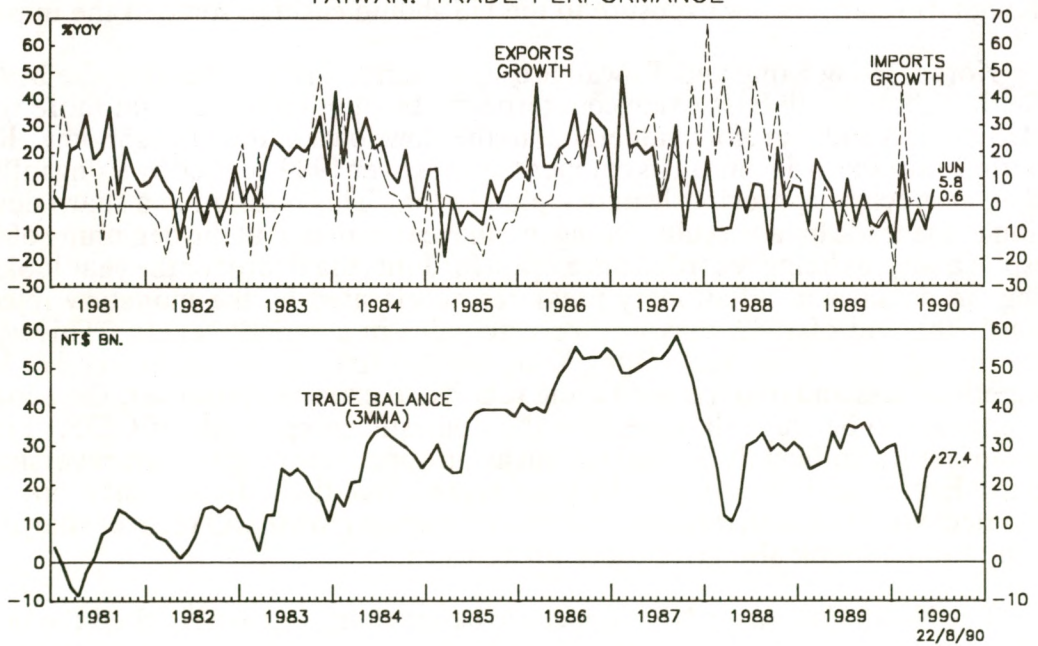
Korea, Hong Kong and Taiwan are significantly further ahead in the business cycle than their South East Asian counterparts. In addition they are far more reliant on US exports and therefore vulnerable to the slowdown of the US economy. Korea experienced a sharp decline in its competitiveness over 1989, fuelled by rising inflation and an appreciating, previously undervalued Won. This resulted in a sharp deterioration in the trade balance culminating in a move into deficit at the beginning of 1990. Despite a surplus being recorded once again for June, the figure for the year looks like being in deficit and inflationary pressures accelerated by the monetary injection towards the end of 1989, may well reverse gains in competitiveness. This will be exacerbated by oil price rises. Hong Kong appears to be reversing its trend of losing competitiveness and imports are falling relative to exports. However, the economy still appears to be sluggish, especially the domestic components of GDP. Finally, Taiwan is still significantly overvalued but again appears to be gradually reversing this trend. Export and import growth have slowed but their decline may now have bottomed out. However, it seems unlikely that export growth will recover sharply and the inflation outlook also gives cause for concern.

The North East Asian NICs appear to be reaching, or have reached the bottom of their respective business cycles. Hong Kong, where the worst seems to be over,

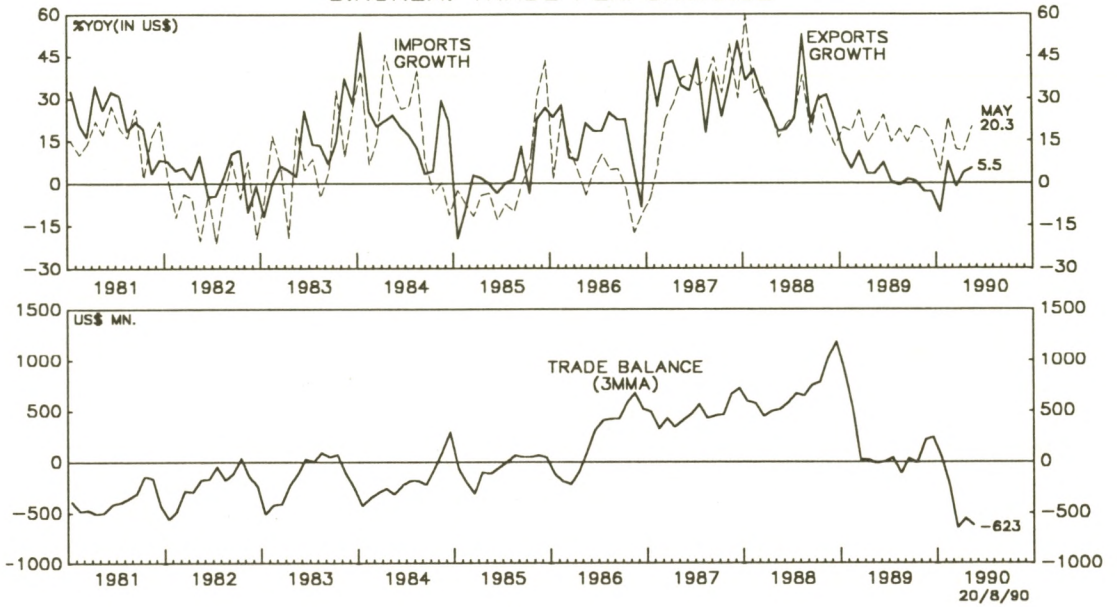
REGIONAL SURVEY: CHART 7
HONG KONG: TRADE PERFORMANCE



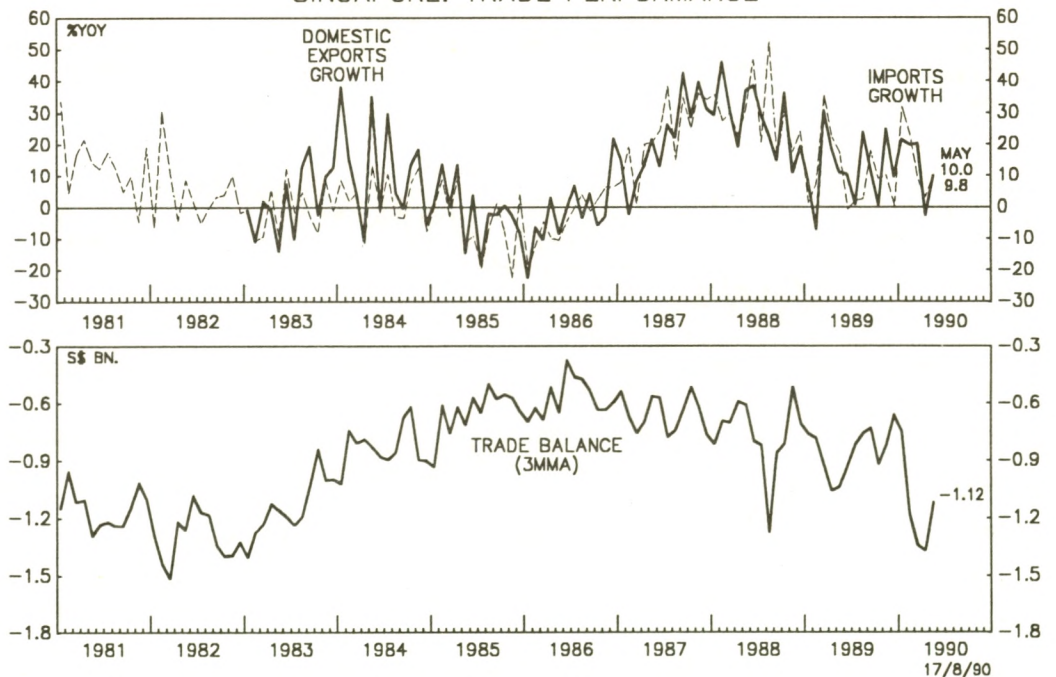
REGIONAL SURVEY: CHART 8
TAIWAN: TRADE PERFORMANCE



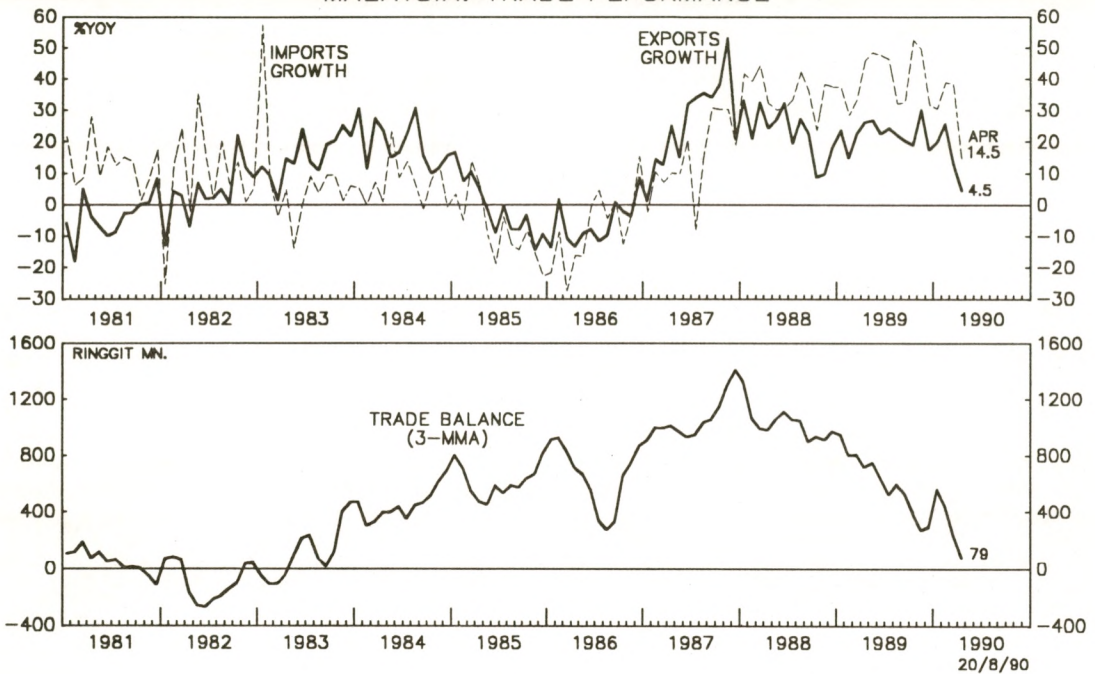
REGIONAL SURVEY: CHART 9
S.KOREA: TRADE PERFORMANCE



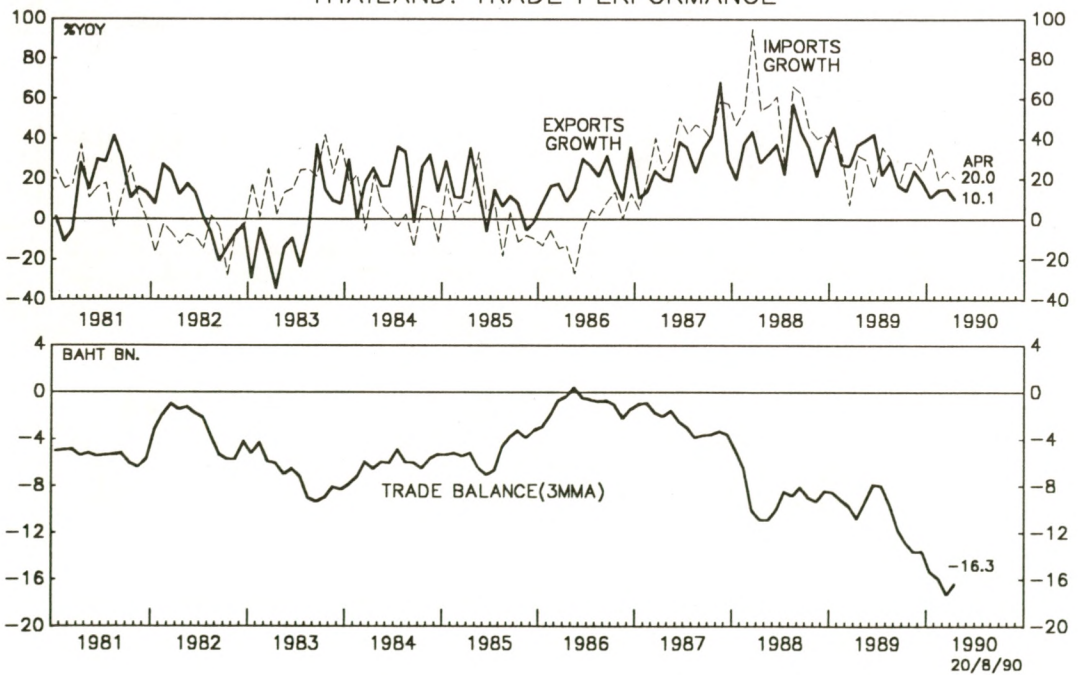
REGIONAL SURVEY: CHART 10
SINGAPORE: TRADE PERFORMANCE



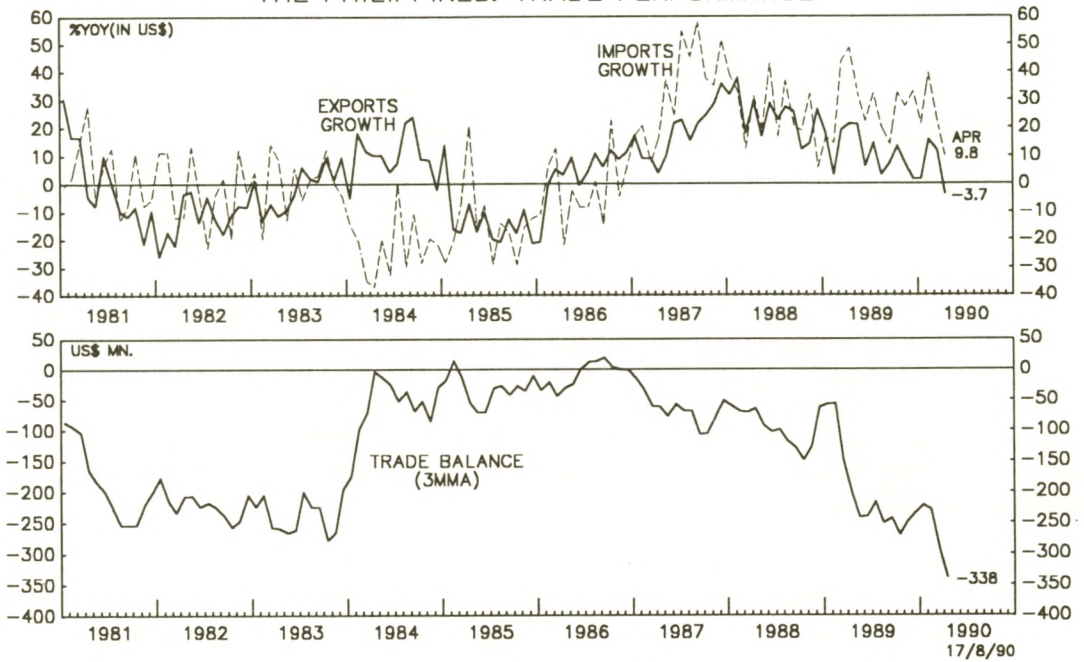
REGIONAL SURVEY: CHART 11
MALAYSIA: TRADE PERFORMANCE



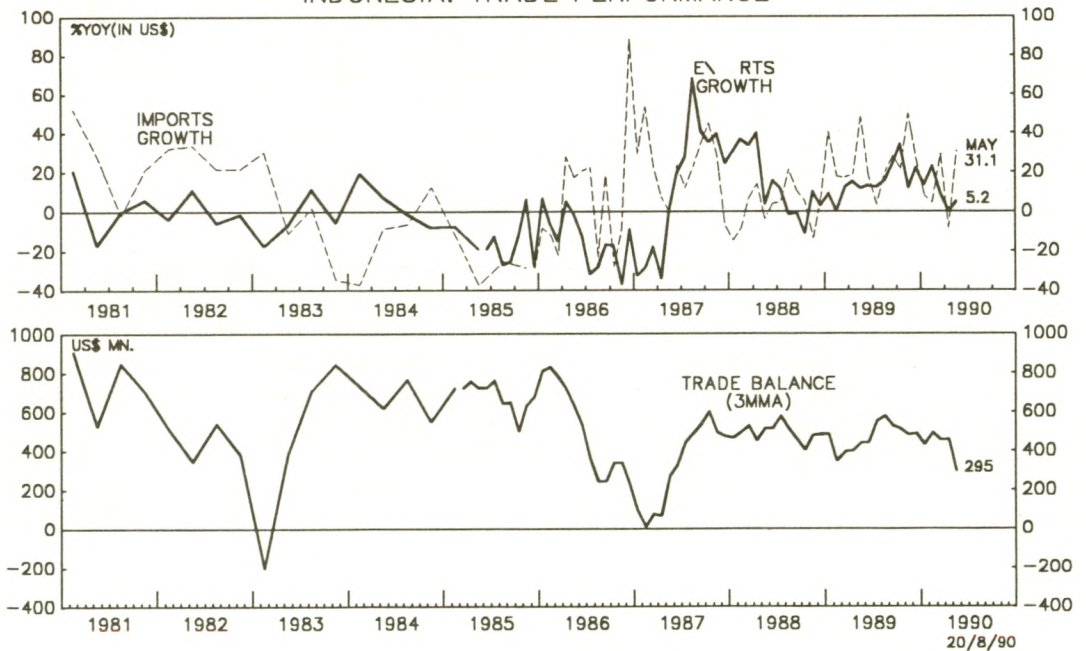
REGIONAL SURVEY: CHART 12
THAILAND: TRADE PERFORMANCE



REGIONAL SURVEY: CHART 13
THE PHILIPPINES: TRADE PERFORMANCE



REGIONAL SURVEY: CHART 14
INDONESIA: TRADE PERFORMANCE



appears to be the furthest advanced of the three. Inflation has started to fall from its peak, competitiveness is stabilising and exports are likely to be given a boost by improving economic conditions in China. In contrast to Hong Kong, domestic demand in both Korea and Taiwan has remained buoyant, contributing to growing inflationary pressures. These pressures threaten to undermine the recent gains in competitiveness of both the Won and the NT\$, implying that export growth will remain relatively weak.

As ever, the ultimate level of inflation and the harshness of the subsequent adjustment process will be determined by the conduct of monetary policy. Hong Kong has little scope for deviation from US policy due to the exchange rate peg. It has kept its interest rates at a slight premium to the US, but these will probably be gradually lowered over the next few months. The Taiwanese authorities have been committed to maintaining tight money. However, with healthy domestic demand, a still overvalued NT\$ coupled with increased government expenditure will only add to inflationary pressures. The prospects for inflation in Korea appear to be the worst of the three, exacerbated by the jump in monetary growth at the end of 1989. Domestic demand still remains very strong, wage settlements are high and the current and trade accounts look like being in deficit this year.

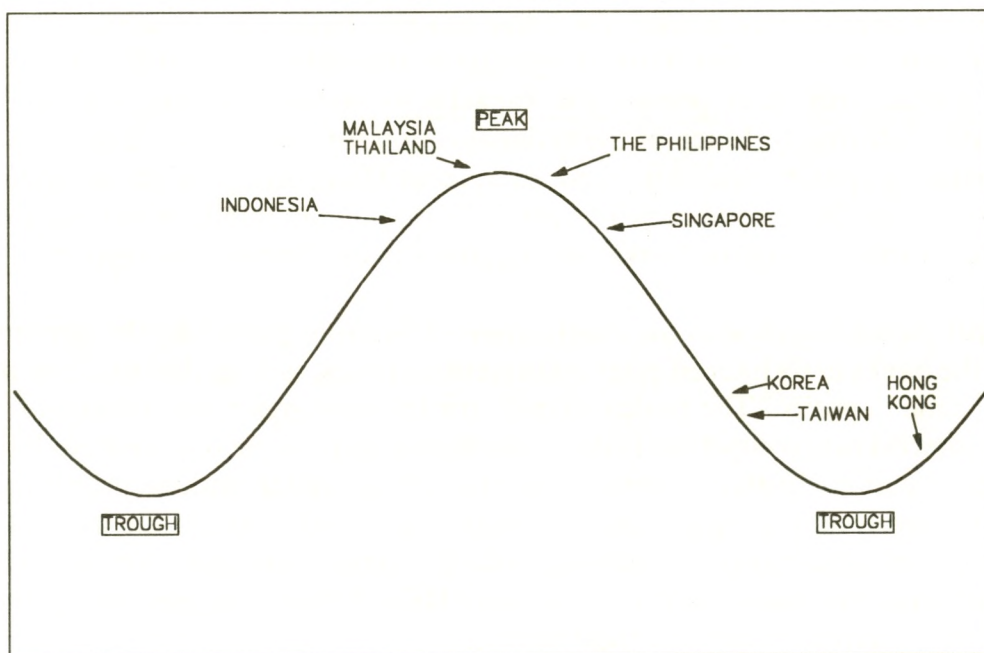
Whilst growth can be expected to be relatively low in North East Asia over 1990 and 1991, there appear to be few signs that South East Asia will experience a similar sharp slowdown. The economies of South East Asia are generally further behind in the business cycle, and less reliant on exports to the US where the slowdown will be severest. Singapore appears to be the furthest advanced economy in this bloc and is slowing from its 1988 peak, although absolute growth levels are still high. It is followed by the Philippines and then lagged by Malaysia and Thailand, and finally Indonesia.

Singapore, Malaysia and Thailand indirectly peg their currencies to the US\$ at generally undervalued levels. Like Hong Kong, therefore, they have little scope for varying monetary policy. Singapore has followed the tightest policy of the three this year, with money supply growth rates having fallen sharply. M1 growth which was in excess of 30% per annum towards the end of 1989 has now been reduced to under 20%. This has dampened inflationary pressures and in the long run it may have smoothed the growth path of the economy. In contrast, Malaysia and Thailand have run deficit based fiscal policies in tandem with relatively loose monetary policy to help accelerate structural development. Although structural changes can absorb a certain amount of inflationary pressure, excess demand pressures are gradually building, especially in Malaysia where inflation has risen from 2% to 5% since the beginning of the year, and a tightening of monetary policy is likely. Nevertheless, strong growth can be expected over 1990 with slight falls in 1991. Indonesia is experiencing similar conditions to Malaysia and Thailand but is approximately a year behind in the business cycle. The Rupiah is still undervalued and the country's relative export position is boosted by its lower exposure to US demand and greater dependence on the relatively stronger Japanese economy. The reopening of relationships with China should also be

advantageous in the long run. Fiscal policy is deficit-led and monetary policy again will be tightened to choke off any inflationary excesses, although inflation levels are below those in either Malaysia or Thailand.

The exception to this generally optimistic scenario for South East Asia is the Philippines. Political volatility, high inflation, a worsening balance of payments and the reconstruction costs following the recent earthquake are all putting strains on the economy. Unchecked money supply growth also seems likely to continue. There appears to be no serious attempt by the Aquino government to address any of these problems and although growth will still be relatively strong over 1990, a hard landing in 1991 seems likely.

REGIONAL SURVEY: CHART 15
THE IDEALISED BUSINESS CYCLE



To summarise, the relative positions of the East Asian economies in the business cycle are shown on Chart 15 above. The contrast between the economies of North East and South Asia is clear to see. It should be noted that the chart shows an idealised business cycle and does not attempt to compare absolute growth rates or relative durations of cycles. Such comparisons are impossible to represent on a single chart as the amplitude of fluctuation will vary from country to country, and the duration of the business cycle in each country is a function of monetary policy in that country.

HONG KONG

BANKING IN HONG KONG : REGULATION, STABILITY, AND THE ROLE OF MONEY MARKET MUTUAL FUNDS

Randall S. Kroszner

1990 IHS-GT Fellow at G.T. Management (Asia) Ltd.

I. Introduction

Market participants may act as monitors of the banking system if they can differentiate a sound from an unsound institution in a straightforward way and at low cost. The smooth operation of market discipline has two basic requirements: first, the relevant information for decision-making must be available to the public, and second, market participants must possess the capacity to understand and interpret this information accurately. Much of the rationalization for the regulation of the Hong Kong banking system (and this is not unique to Hong Kong) is based upon the assumption that the second requirement fails, that is, the public is not capable of competent evaluation of the banks and requires various forms of protection.

This paper begins with an examination of the role played by the agreement among the banks to fix interest rates on current accounts, savings deposits, and many types of time deposits. The basic rationale for the agreement is to eliminate "cut-throat" interest rate competition among the banks, which is held to be destabilizing because the public will place its money with the highest bidders without proper regard to the risk involved in a higher return. It will be shown that in fact the interest rate cartel has done little to promote stability in the banking system, but has caused a large reduction -- roughly estimated to be in excess of HK\$5 billion this year -- in the amount of interest customers receive on their balances.

The next aspect of the Hong Kong banking system on which this paper focuses concerns the lack of disclosure of the true reserve position of banks. Important information about the soundness of banks is withheld from the public and the information publicly reported by banks is consciously manipulated to mask the underlying state of affairs in order to smooth fluctuations that might "panic" the public. Curiously, the alleged failure of the second requirement for reliance on market discipline has been used as a rationalization for being certain that the first fails also -- that is, that relevant information is not available. By depriving the public of the data necessary to evaluate the banks, the assertion about the public's incompetence becomes self-fulfilling. This paper argues that increased public disclosure concerning reserves would strengthen market discipline and help to make the transition in 1997

as problem-free as possible.

The final sections of the paper will consider a competitive alternative which has different but improved overall risk properties, provides market rates of interest to depositors, and generates more information and monitoring. Money market mutual funds, operating much as unit trusts, offered by banks and other institutions are the basis of this alternative. However, the regulatory structure in Hong Kong sets up important obstacles to the growth of money market mutual funds.

II. Origins and History of the Interest Rate Agreement (IRA)

The Banking Ordinance of 1948 introduced licensing of banks and set up a Banking Advisory Committee of government and private agents to administer the licensing and regulation of banks. This Ordinance provided the statutory background for the expansion and prosperity of the economy and banking system of Hong Kong until the 1960s. In 1961, there was a run on the Liu Chong Hing Bank due to concerns about its large commitment in long-term real estate. The liquidity squeeze was averted when the two note-issuing banks (Hong Kong and Shanghai Bank and Standard Chartered Bank) declared support for the troubled bank.

Anxiety about the stability of the banking system led the government to invite Mr. H.J. Tomkins from the Bank of England to suggest an overhaul of the banking system. Among the features of the Hong Kong system singled out as problematic, the Tomkins Report of 1962 voiced great concern over what it called “cut-throat” interest rate competition for time deposits. To attract deposits through higher rates, it was argued, banks -- particularly the smaller banks -- might take on excessively risky investments. Most of the recommendations of the Tomkins Report, including the appointment of a Commissioner of Banking and the introduction of reserve and liquidity ratios, were incorporated into the Banking Ordinance of 1964; however, no statutory action was taken concerning deposit rates. In July 1964, the Exchange Banks’ Association (EBA), predecessor of the Hong Kong Association of Banks (HKAB), introduced the Interest Rate Agreement (IRA).

The Interest Rate Agreement was born after a number of years of negotiation among the banks. Licensed banks were classified into five types of institutions, with banks in each category required to offer the same rate. The rate each class of bank could offer differed by a uniform increment. The spread between the highest and lowest rates was 175 basis points. This handicapping system has been gradually revised to the current two-class system with a 50 basis point spread. Category I banks, which offer the lower rate, include the foreign-controlled but non-Chinese banks and the note-issuing banks. China-related banks and independent local banks fall into Category II.

Except for time deposits over 15 months or deposits above HK\$500,000 for a term of at least three months, the Exchange Banks' Association -- now the HKAB -- sets the interest rates on all Hong Kong dollar accounts. Demand deposits earn zero interest at all banks. Savings deposits earn the same rate, established by the Association, regardless of categorization. Following its creation as a statutory body in a 1980 Ordinance, the Hong Kong Association of Banks administers the IRA. HKAB meets weekly to review the interest rate situation and decide if any changes should be made.

The end of the "interest rate war" and the formation of the IRA did not prevent a major banking crisis from occurring in the following year. Statements from the Banking Commissioner and the chairmen of the banks in question were insufficient to quell rumors concerning insufficient liquidity, and some banks began to experience runs. A major real estate boom came to an end posing liquidity and, perhaps, solvency problems for a number of banks. As Cheung (1979, pp. 42-52) describes, a special provision in the 1962 amendment to the Building Ordinance caused a significant distortion in the property market. The legislation provided a strong incentive to tear down old apartment buildings and construct new ones prior to the end of 1965. Builders using bank financing became overextended and the bubble burst. Thus, it appears that unfortunate legislation concerning the housing market, not prior interest-rate competition, precipitated the problems with bank assets in 1965.

There have been a number of alterations of the regulatory structure since the 1965 Ordinance, increasing reserve requirements, liquidity ratios, and supervision. In the late 1970s and early 1980s, a Three Tier System of institutions permitted to accept deposits developed. First, licensed banks are authorized to accept deposits of any size and maturity, provided the interest rates on deposits under HK\$500,000 are in accord with the IRA, and are governed by the rules of the HKAB. Second, licensed deposit taking companies (licensed DTCs) may accept deposits over HK\$500,000 without any restriction on maturity, although they may not offer current account facilities. Third, registered deposit taking companies (registered DTCs) may accept deposits over HK\$50,000 with a minimum maturity of three months. The DTCs are not members of the HKAB, nor were they of the EBA, so they are free from the IRA interest rate controls. The DTCs have lower capital and reserve requirements than banks. A statutory change enacted in January of 1990 has altered the appellations of the second and third tiers -- licensed DTCs have become "restricted license banks" and registered DTCs now are called simply "DTCs" -- but we will continue to use the older terms here.

TABLE 1

REGULATION OF HONG KONG DOLLAR DEPOSITS IN THE THREE
TIER SYSTEM

	<u>Minimum Deposit Size</u>	<u>Maturity</u>	<u>Interest Rates</u>
Licensed Banks	No restriction	No restriction	Interest Rates on deposits with maturity up to 15 months are governed by IRA
Licensed DTCs (now restricted Licensed Banks)	HK\$500,000	No restriction, but no current accounts permitted	No restriction
Registered DTCs (now DTCs)	HK\$50,000	3-month minimum	No restriction

Subsequent problems in the Hong Kong banking industry do not appear to have been avoided by the IRA and may have been exacerbated by it. The DTCs, which had grown rapidly as interest rates rose in the late 1970s and early 1980s as people tried to circumvent the IRA ceilings, faced liquidity and solvency problems in 1981 and 1982, and runs began. In 1983 and 1985, a number of banks faced runs or were unable to meet their obligations to the clearing house, and were declared insolvent. The Exchange Fund as well as a number of sound financial institutions intervened to take control of problem banks and stem the runs. The fraud, mismanagement and shaky asset positions causing some of the most prominent bank failures, such as the Hang Lung Bank and the Overseas Trust Bank bankruptcies, would have been revealed sooner had there been fuller disclosure by the banks. Their spectacular collapses and disruptions to the Hong Kong financial system in the 1980s would have been greatly reduced, if not avoided, if the problems had not been allowed to get out of hand. After considering the consequences of the IRA in Section III, Section IV will then examine the impact of the accounting practices of the Hong Kong banks.

III. Consequences of the Interest Rate Agreement (IRA)

A. Competitive Responses and Erosion of the IRA

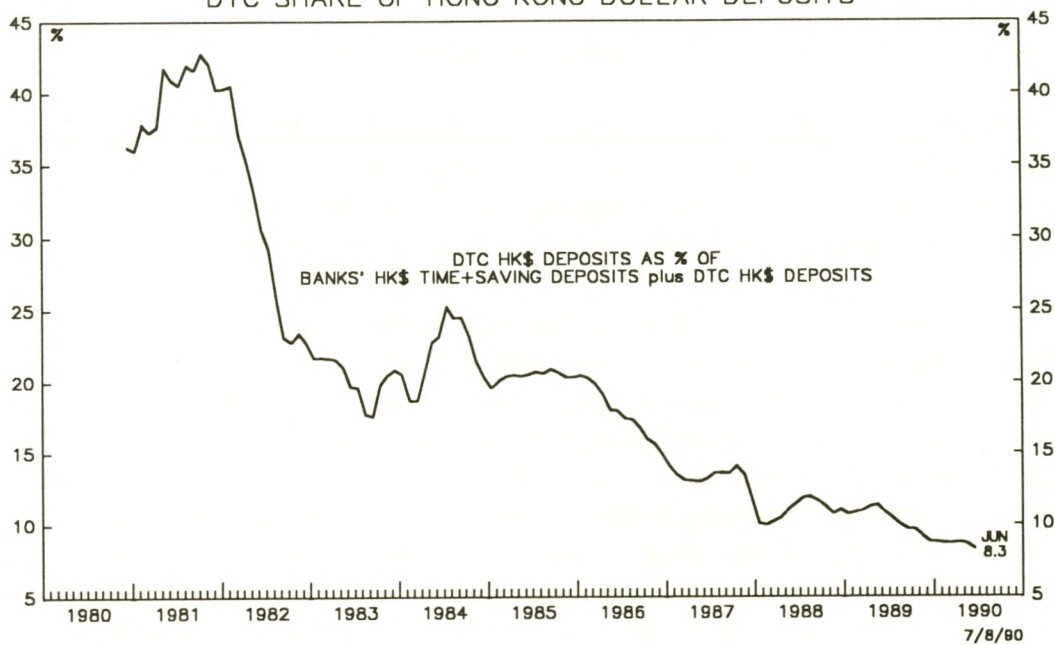
While the IRA has restricted price competition among the banks, there still have been competitive pressures to circumvent the restrictions through other means. One consequence is to provide a number of services to customers free of charge or below cost. Free checking privileges on current accounts (without a minimum balance) is one such example. The development of extensive branch networks to increase the convenience for customers is another margin of competition. It must be noted, however, that a large expansion of branch offices occurred in the early 1960s prior to the IRA. Thus, the extent of "overbranching" may not be great. The widespread offering of Automatic Teller Machine services at no charge is another area of non-price competition among the banks. The IRA and HKAB rules in general result in restriction of the ability of banks to offer some products and services, such as the money market mutual funds to be discussed below.

Registered DTCs have been able to undermine the IRA since they are free to offer market rates on deposits of at least HK\$50,000 for maturities over three months. As noted above, circumventing the IRA was an important spur to their rapid growth in the late 1970s and early 1980s. (At this time there was no restriction on the maturity of deposits they could accept hence many banks established DTC subsidiaries, and customers transferred their deposits to the DTC to earn higher interest.) Following the problems the DTCs experienced in 1982 and the imposition of the minimum 3-month maturity, they have lost their importance in the Hong Kong banking system. Their share of Hong Kong dollar deposits (excluding current accounts) peaked at over 40 percent in 1981 and has shrunk to under 10 percent today (see Chart 1).

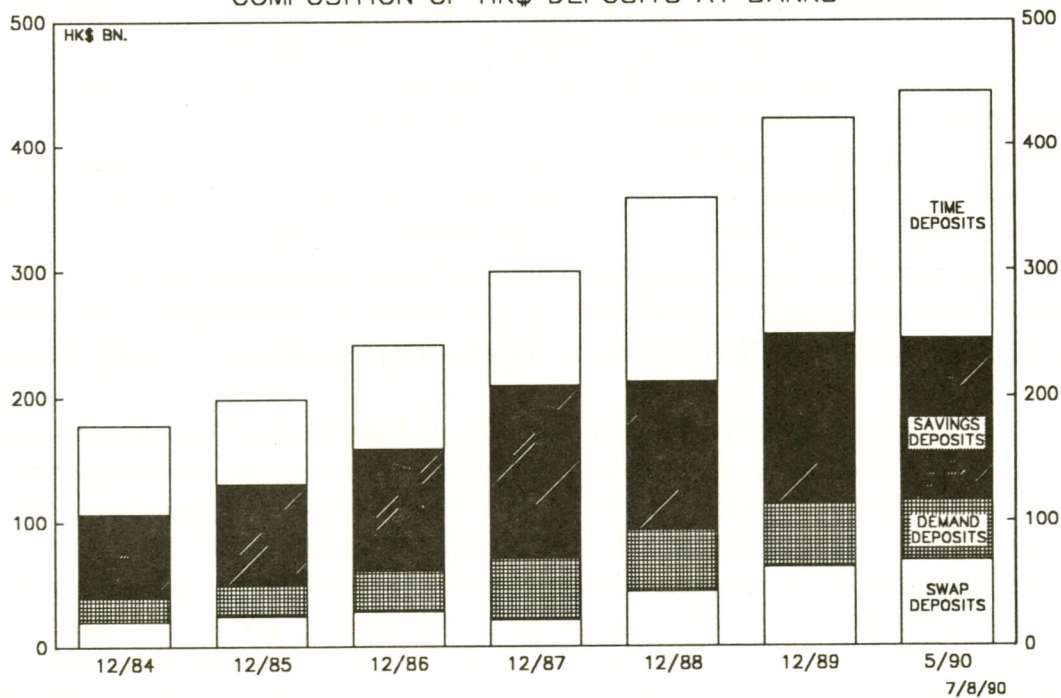
The IRA governs only Hong Kong dollar-denominated deposits. Foreign currency swap accounts take advantage of this to offer market rates of interest on deposits denominated in foreign currencies. With a swap account, the bank takes the depositors Hong Kong dollars and "swaps" them into foreign currency. The depositor earns interest at the rate prevailing on that currency. At the conclusion of the specified term, the bank swaps the funds back into Hong Kong dollars. Of course, this account exposes depositors to exchange rate risk. Since the implementation of the link between the Hong Kong dollar and the US dollar, however, exchange rate risk to holders of accounts denominated in US dollars or currencies pegged to it has been largely eliminated.

The IRA eliminates not only price competition among the banks for deposits but also impedes product competition. One of the most important developments in the money markets ruled out by the IRA is money market mutual funds offered by banks.

HONG KONG: CHART 1
DTC SHARE OF HONG KONG DOLLAR DEPOSITS



HONG KONG: CHART 2
COMPOSITION OF HK\$ DEPOSITS AT BANKS



The conveniences, return, and risk properties of such accounts will be discussed in detail in Section VI.

B. Benefits of IRA to the Banks and the Costs to Customers

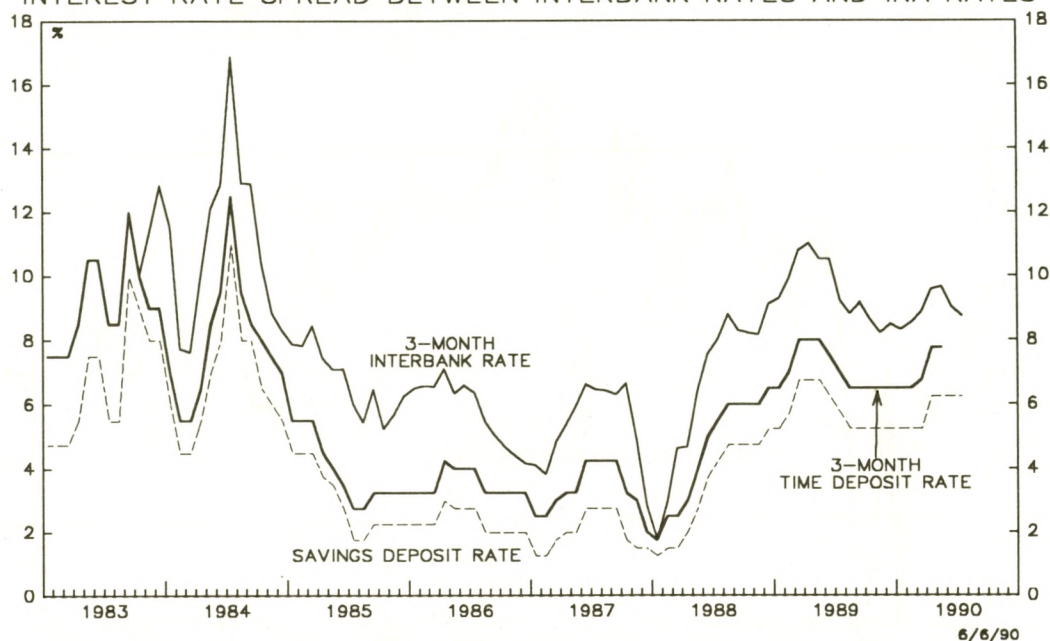
There are two major distributional consequences of the IRA. First, the cartel arrangement allows the banks to profit at the public's expense. Second, the IRA affects the allocation of profits among the banks themselves. We will first discuss the benefits to banks in general then turn to the inter-bank distribution issue.

The most obvious benefit to the banks of the IRA is access to a low cost source of funds. Banks can and do agree to pay below market rates of interest on deposited funds without fear of competition. Depositors in Hong Kong who wish to use current accounts have no choice. The Clearing House of the Hong Kong Association of Banks (HKAB), which has a monopoly of cheque clearing in Hong Kong, refuses membership to any bank not adhering to the regulations of the HKAB. Thus, any financial institution offering market interest rates on current accounts or on HK\$ accounts under \$500,000 for less than three months would lose the ability to provide chequing services to its customers. This is an extremely potent weapon with which to discipline banks that might consider exerting competitive pressures.

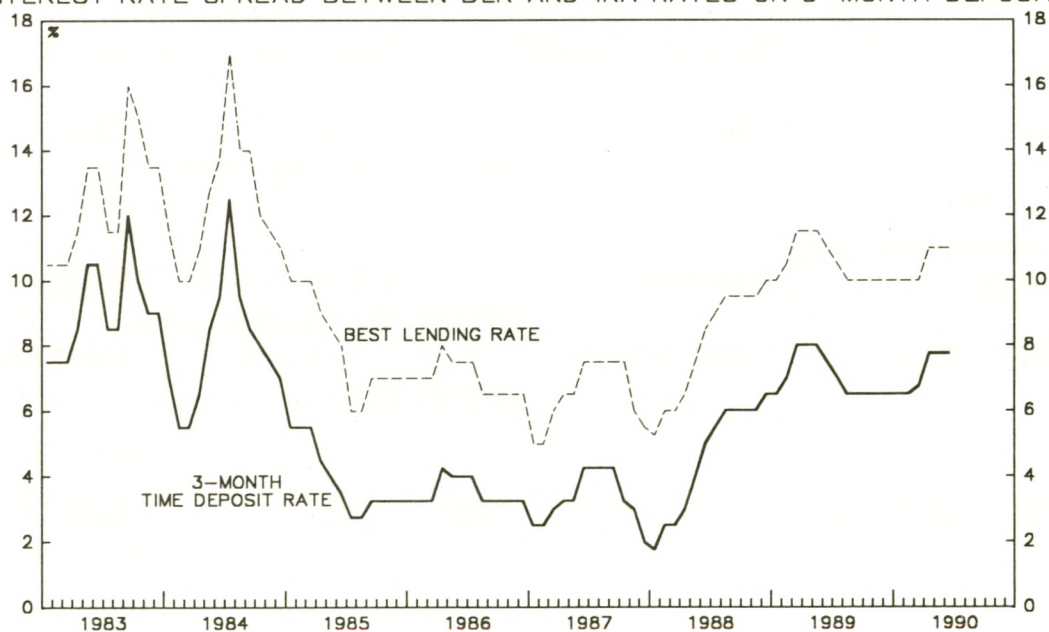
An estimate of the losses to customers can be calculated by examining demand (i.e., current accounts), savings, and time deposit holdings. (Chart 2 shows the composition of HK\$ deposits in the Hong Kong banking system.) These losses will not include the inconvenience and waste that is caused by individuals shifting funds in and out of various accounts in order to reduce their foregone earnings. (Such losses in consumer welfare are often called "shoe-leather" or non-pecuniary costs.) As of mid-1990 there were roughly HK\$50 billion demand deposits or current accounts. Conservatively estimating the competitive interest rate that would be paid on these funds to be 5 percent, to take account of services that are now provided free and might have a positive price under competition, the minimum loss to demand deposit holders is HK\$2.5 billion this year. (See Charts 3A and 3B for a comparison of the levels of interest rates under the IRA relative to interbank rates and Best Lending Rates.)

There are no published figures on total Hong Kong dollar time deposits covered by the IRA. The losses to customers on time deposits must therefore be estimated indirectly. Total time deposits at banks in HK\$, excluding swap deposits, were roughly HK\$180 billion. Assuming that only 10 percent of non-chequable HK\$ time deposits are subject to the IRA ceilings, time deposit account holders then lose HK\$0.18 billion for every percentage point wedge between the IRA ceiling and market rates. Comparing the three month inter-bank offer rate (HIBOR) with the regulated three-month time deposit rate, for example, the spread averages roughly 2.5 percent since

HONG KONG: CHART 3A
INTEREST RATE SPREAD BETWEEN INTERBANK RATES AND IRA RATES



HONG KONG: CHART 3B
INTEREST RATE SPREAD BETWEEN BLR AND IRA RATES ON 3-MONTH DEPOSITS



HONG KONG: CHART 4
REAL RATES OF RETURN ON 3-MONTH DEPOSITS UNDER THE IRA

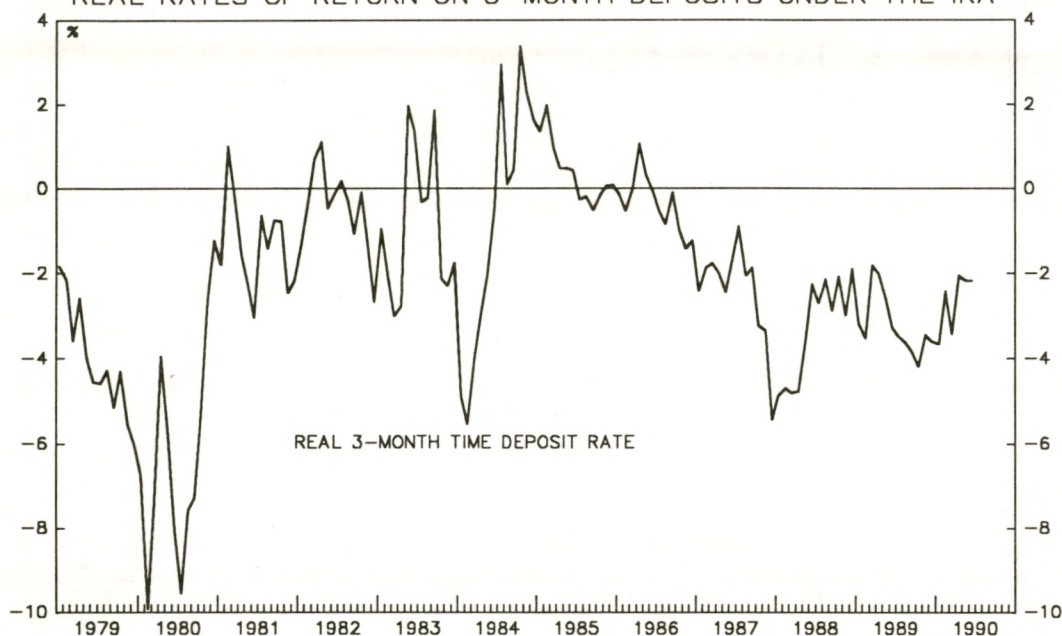


TABLE 2

INTEREST FOREGONE BY HK\$ DEPOSITORS DUE TO THE INTEREST
RATE AGREEMENT

	<u>Amount (May 90)</u>	<u>Multiplier</u>	<u>Interest Lost</u>
Current Accounts	HK\$50 bn	x (5.0%-0%) (Market rate less IRA rate)	= HK\$2.5 bn
Time Deposits	HK\$180 bn		
Time Deposits under IRA (est.)	HK\$18 bn	x (2.5%-0.5%) ((HIBOR-IRA)-normal spread)	= HK\$0.36 bn
Savings Deposits	HK\$130 bn	x (3.5%-1.5%) ((HIBOR-IRA)-normal spread)	= HK\$2.6 bn

TOTAL INTEREST LOST BY CUSTOMERS

HK\$5.46 bn

See text for explanations.

the HK\$-US\$ link was established in November 1983. After subtracting a half percent maintenance cost on time deposits, in line with spreads in other countries (see Barings 1990, p. 28), the total annual losses to time depositors thus are HK\$0.36 billion.

All savings deposits are covered by the IRA. Hong Kong dollar savings deposits at banks total roughly HK\$130 billion. For each percentage point that the IRA keeps the rate on savings deposits below the market rates, savings depositors forego HK\$1.3 billion in interest each year. The rate on savings deposits has averaged roughly 3.5 percent less than the three-month interbank rate (since the HK\$-US\$ link was created in October 1983). Estimating that market rates on savings deposits would be 2 percent higher under competition, savings depositors lose roughly HK\$2.6 billion each year. Thus, as shown in Table 2 the sum of the losses to all types of depositors in terms of foregone interest this year alone is estimated to be over HK\$5 billion.

Another way in which to view the losses to depositors is in terms of the real interest rate they receive. After adjusting for inflation, Hong Kong dollar depositors on average earned negative real rates of return on their deposits over the last seven years. As shown in Chart 4 three month time depositors have had persistently negative rates of interest, averaging -1.7 percent real return and savings depositors have experienced an average -2.9 percent real return. Current account holders, receiving no interest, have a real return which is the negative of the inflation rate.

To understand why the IRA is structured as it is, it is necessary to investigate the important distributional consequences between different types of banks. As discussed above, "smaller" local banks and the Bank of China have an extra 50 basis points with which to entice depositors. Many of these banks argue that without such a premium they could not compete against the largest banks for these "cheap" deposits. The larger banks have more offices and offer more services so can be more convenient for depositors. Thus the structure of the IRA allows the "smaller" banks to have a larger share of total deposits than they would have under a uniform interest rate regulation. Without any agreement on interest rates, it is unclear that the "smaller" banks would be able to offer a more attractive risk-return trade-off to increase their share, but it is clear that their profit margins on deposits would be reduced.

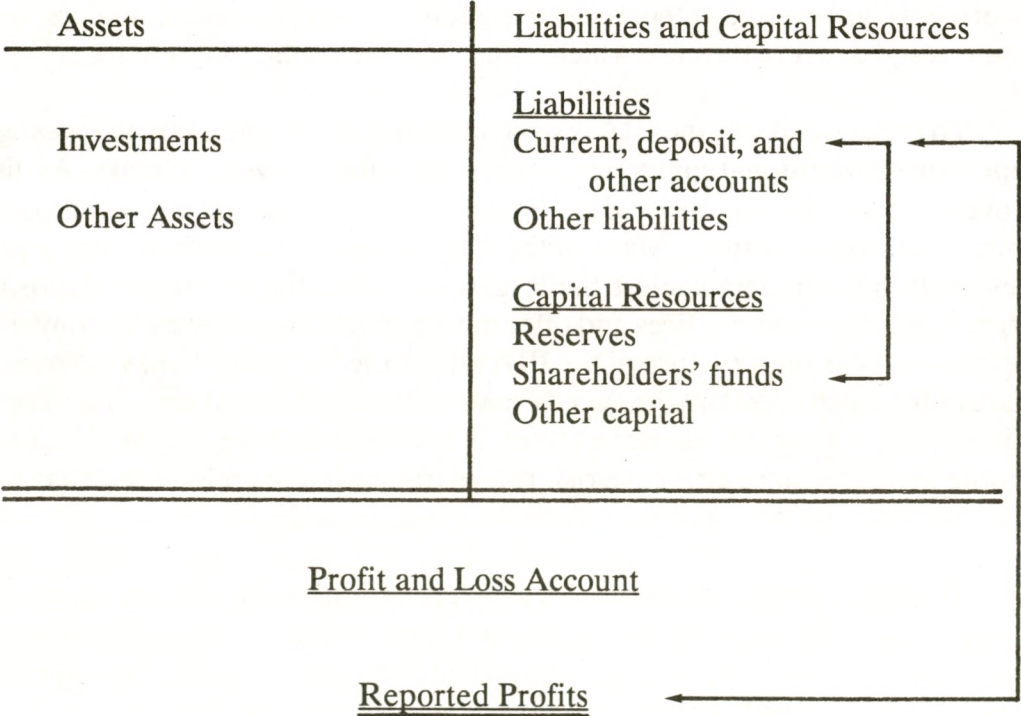
There is a parallel to the way in which government deposit guarantee schemes typically work. Specifically, the largest and most secure banks tend to subsidize the smaller and weaker institutions. Why would the larger banks then agree to this handicapping system? The largest banks know that the smaller local banks are not their most significant rivals. The large international banking corporations are. The IRA allows the smaller banks to stay in business, in regulated competition, catering to

a different segment of the market than the larger banks.

The IRA makes Hong Kong less attractive to entry by the international banks, particularly the consumer-oriented institutions. In an environment without price competition and with the introduction of new products to lure depositors impaired, newcomers are at a particular disadvantage. The large banks provide the handicap to maintain the “smaller” banks’ support for a cartel which weakens the competitive pressures of the foreign (non-Chinese) banks on the large banks. Foreign (non-Chinese) banks thus tend to open “representative” offices mainly to provide banking services other than taking deposits. Reducing the ability of large foreign banks to compete for Hong Kong dollar deposits certainly helps to enhance the position and profitability of the incumbent banks and at the same time reduces the welfare of local depositors.

TABLE 3

THE EFFECT OF INNER RESERVES ON BANK BALANCE SHEETS



IV. Inner Reserves: Description and Background

A bank's inner reserve is one of its most closely held secrets. It is reported that only the top officers and a few of the most trusted directors know this number for a particular bank. The Banking Commissioner alone, not any members of his staff, is privy to the inner reserve numbers for the banks in Hong Kong.

The inner reserve represents a "rainy day" fund built up in good times to provide a source of funds in hard times, above and beyond the amount of reserves that the bank announces. Rather than report the true profits for the year, the bank will understate (overstate) annual profits by transferring a secret amount of monies into (out of) this special fund. Since the inner reserve is not publicly reported, inner reserves are sometimes called "hidden" reserves. The mystery and mystique surrounding inner reserves can be lessened by examining how inner reserve accounting affects a bank's reported balance sheet.

The term inner reserves as commonly used encompasses two types of balance sheet items. The first, which may be called inner reserves proper, affects the liability side of the balance sheet. The second, which may be placed under the heading undervaluation of assets, affects the asset side of the balance sheet.

Inner reserves proper are generated from realized capital gains and retained earnings from ongoing operations. Rather than finding their way onto the bottom line of the profit and loss account, they are "transferred" to inner reserves. In practice, this transfer is accomplished by overstating the liability entry "current, deposit, and other accounts," which typically is the largest item on the liability side. To maintain balance, shareholders' funds are understated. Note that the "reserves" item reported under the capital resources heading, also considered a liability, need not be affected by this transaction. Similarly, the inner reserves proper can be drawn down through the opposite changes to the liability side, allowing a transfer to the bottom line of the profit and loss account to boost reported profits. Total inner reserves proper held by the bank thus constitute these accumulated net transfers.

Undervaluation of assets may provide an additional source of unreported reserves. Assets that have appreciated in value over time may be logged on the balance sheet at original or so-called book value. Typically the primary asset categories involved are equity investments and real estate. During booming property and share markets, such unrealized gains can be substantial. By not increasing the reported value of these assets as their market value rises, a bank has another "hidden" resource from which it may draw to strengthen the asset side of its balance sheet. While accounting practices with respect to asset revaluation vary widely across countries, logging classes of assets at book rather than "fair market value" is not a characteristic

peculiar to Hong Kong.

The size of banks' inner reserves is the source of much interest, since it is an indicator of the soundness of the bank, hence also of much speculation, since it is unreported. For example, estimates for Hong Kong's largest bank, the Hong Kong and Shanghai Banking Corporation, range from HK\$12 billion to HK\$27 billion (see, e.g., Baring Securities, Merrill Lynch, and Morgan Stanley). These figures would represent a sizable increase in the reported reserves at the end of 1989 of HK\$38 billion.

Many countries, such as the U.S., have much stricter disclosure requirements that would not permit the unreported accumulation of inner reserves proper. There has been a trend toward increasing disclosure, both voluntary and mandatory. In the U.K., for instance, the major banks voluntarily ended the practice of secretly held inner reserves about a decade ago. On the other hand, Swiss banks continue to keep their inner reserves secret as do the banks in Singapore. Note that the ability to choose the bottom line of profits also gives the management of banks in Hong Kong the choice of tax liability for the year.

V. Consequences of Inner Reserves

Three lines of reasoning are given in support of hidden reserves proper, all related to assuring the stability of the system. After outlining the three arguments, we will then critically evaluate them in turn.

The first concerns the public's understanding of information reported about banks. Proponents claim that the public takes a very short-term view, that is, they put excessive emphasis on annual bank performance. Even if reported, the public would not look at the overall reserve position and soundness of a bank's balance sheet, supporters argue, but focus primarily on the announced profits. Thus, reporting one year of losses could undermine confidence in an otherwise sound bank, potentially precipitating a panic run. Fears may spread resulting in runs on other institutions and a full fledged crisis for the financial system.

Inner reserves accounting can avoid this scenario by allowing the banks to smooth their reported profit figures. In good years, funds flow into inner reserves understating actual profits, and in bad years, funds can be drawn from inner reserves to boost reported profits or turn actual losses into announced profits. The cushion provided by inner reserves thus permits banks to avoid releasing profit information that might frighten the public into a run on an otherwise sound bank.

A second argument, closely related to the first, is that inner reserves provide

bank management with greater discretion. Clearly, management is able to choose its profits and thereby shape the public perception of the health of the institution. In addition, directors and officers have more flexibility to undertake new projects or strategies or wind up existing ones without revealing too much information to competitors. The increased flexibility afforded by the secrecy of inner reserves thus allows management either to exploit profit opportunities they might not otherwise be able to take advantage of or to liquidate positions that might otherwise prove embarrassing (hence be delayed) without undue repercussions. This discretion thus enhances the ability and efficiency of the officers and directors in fulfilling their fiduciary responsibilities to shareholders and depositors.

Third, inner reserves are an important source of self-insurance, particularly in a system such as Hong Kong's without an explicit lender of last resort. A large reserve may be good for depositors but shareholders may clamor for a payout from the "pot of gold" rather than allow it to be kept for a "rainy day." This conflict could lead to too little being held as reserve, since the shareholders elect the directors and the depositors have no direct voice in management choice. Conversely, maintaining secrecy may result in a larger reserve being held, thereby strengthening the position of the bank.

These arguments, however, are subject to a number of criticisms that undermine the case for inner reserves. Arguments also will be made that inner reserve accounting is likely to reduce rather than enhance the stability of the banking system in Hong Kong.

While advocates of hidden reserves assert that secrecy and manipulation of reported profits foster stability, they can create much uncertainty. Recent work in economics points to the inability of the public to verify a bank's assets and reserves as the key element that may trigger a "panic" run (see Diamond and Dybvig 1983). Precisely because people do not know the strength of the reserve position, people may join the queue at the teller's window to withdraw funds when they see others doing the same. If they knew the extent of the reserves and assets (and these remained at prudential levels), they would not join the queue. Disclosure would go a long way toward eliminating this potential for instability that is part of any fractional reserve system.

The first argument for inner reserves also relies upon a peculiar assumption concerning public's mentality. People are said to follow profit statements quite carefully -- enough to act to withdraw a significant amount of funds. They are not able, it is assumed, to be able to understand or act upon statements of total reserves or reserve/asset ratio. These numbers, if reported, are hardly more difficult to grasp than profits

statements. Individuals make many complex decisions each day using a variety of sources of information. It is extremely unlikely that depositors are so unsophisticated and short-sighted that the report of a decline in profits with continued strong reserves would trigger panic withdrawals.

In addition, there tends to be an inverse correlation between the sophistication of investors and the amount of funds they control. Thus, a run by the least sophisticated depositors is likely to have the smallest impact on total deposits, even if small depositors are the most numerous type of depositor. If the more sophisticated depositors, who hold the majority of total deposits, know the bank is in a sound position, they will not run. If they have only the chairman's or the Banking Commissioner's word, having no concrete information about the actual reserves or the true history of profitability, they are more likely to become nervous when the "unsophisticated" depositors begin their run and try to get their money out also. In the 1965 banking crisis, as noted above, such statements did not have sufficient credibility to prevent runs. The secrecy of the inner reserves and the manipulation of the profits figures thus can subject the system to greater instability and heightened chance of "panic" runs.

Secrecy may result in excessive emphasis on the supposed inner reserve figure and foster speculation based upon what little information is reported. Without the "hard facts", unsubstantiated rumors about the soundness of a bank's portfolio are more likely to be believed and to influence people's actions. Full and proper disclosure would avoid all this. It is possible that the fears voiced by the inner reserve advocates could become self-fulfilling: runs may occur on "disappointing" profit reports because people have so little information but know that a bank can paint a rosy picture if it has at least some undisclosed inner reserves. There are, however, no examples I have been able to uncover of a bank run in Hong Kong based upon a poor single year performance. During the post-war banking crises in Hong Kong, concerns about the underlying value of a bank's portfolio, not about this year's profits, have precipitated collapse (see, e.g., Jao 1974 and Ghose 1987).

The second argument concerning increased managerial flexibility afforded by hidden reserves is a double-edged sword. While withholding information from rivals (hence the public) undoubtedly helps one's competitive position, it is not without cost. Neither depositors nor bank shareholders are fully aware of the bank's state of affairs, impairing their ability to monitor bank management. With this hidden "free" cash flow, management might use its flexibility to undertake projects that do not maximize shareholder value or bank stability. Investments that have turned out poorly may be held longer than they otherwise would have. Losing strategies can be maintained without repercussions on the bottom line for many years. The free cash flow theory of corporate governance argues that management can indulge its preferences for such

actions as prestigious corporate empire-building and lavish facilities as common manifestations of using internal funds less than optimally (see Jensen 1988).

While undertaking low return projects and wasting bank resources might not undermine the soundness of a bank in good times, it can cause losses to be compounded in tougher times. A parallel can be drawn with the savings and loan institution crisis in the US. When problems were first beginning to surface for the thrift industry in the early 1980s, the Garn-St. Germain Act of 1982 relaxed accounting standards for the savings and loan industry. Much like inner reserve accounting, this change permitted thrifts to mask their true reserve and asset positions. Savings and loans which would have (and should have) been closed much earlier continued to operate, with losses mounting. One study has estimated that the interest cost alone on delaying action rather than directly addressing the losses at the time this legislation went into effect is US\$43 billion or roughly 30 percent of the total federal government losses in the savings and loan industry (Bert Ely quoted in Asian WSJ, July 23, 1990, p. 14). (Note that the federal government deposit guarantees play an important role in the US crisis.)

Finally, we consider the third set of arguments for inner reserves, namely their self-insurance role. The argument in favour of keeping inner reserves secret to cover up the shareholder-depositor conflict and thus to preserve the strength and stability of banks can be countered by an equally strong argument in favour of disclosure. Shareholders naturally wish the bank to maximize its profitability, and this means providing an attractive venue for depositors to place their funds. Raiding reserves would certainly send a strong signal to depositors, undermining their confidence in the bank. The potential loss of deposits, even if only those of the large sophisticated depositors, will discipline the shareholders and management from excessively drawing down reserves. An appropriate balance between stability and profitability is the most likely outcome of fuller disclosure. Under the current regime, as long as reserves exceed HK\$200 million (1986 Banking Ordinance, Sec. XIV), funneling reserves to shareholders may occur without the depositor knowing and having the opportunity to react.

While the banks submit their "true" reserve position to the Banking Commissioner, there are no guidelines relating actual to reported profits figures. That only one individual is aware of the actual positions of banks in a financial system as large and complex as Hong Kong's -- and has no formal powers to link appearance and reality -- creates a precarious situation, at best. The credibility problems associated with secret self-insurance with so little outside review are quite large. The nervousness surrounding 1997, the lack of experience and trust with the new regime, and the potential for abuse (on both sides) raises the importance of addressing the credibility issue soon. Particularly as 1997 approaches, the greater the ability of individuals to

monitor the state of the banks, rather than rely upon statements of banks' officers and the successor to the Banking Commissioner to provide assurances, the less subject to destabilizing rumors and panics will the system be.

VI. Money Market Mutual Fund Alternative

The alternative approach to issues of stability and disclosure considered here is the money market mutual fund account, operating as a unit trust. This section examines the features of such accounts and their effect on the banking system. The subsequent section examines specific barriers in Hong Kong to permitting such an alternative to compete effectively with the existing arrangements.

Information about the underlying value of the portfolio would be available much more frequently and fully than for a bank's portfolio, for two reasons. First, the assets would be quite liquid and frequently traded, thus generating a publicly observed price, unlike long-term loans and other illiquid holdings typically found on a bank's balance sheet. Second, the shares themselves would be priced, taking into account the information on the value of the underlying assets. In this way, the shares would be "marked-to-market."

Such a scheme, however, requires that the shares be subject to fluctuation in price, in sharp contrast to traditional bank accounts. These fluctuations can be reduced by holding short-term, high-quality instruments in the fund: their short-term nature minimizes interest-rate risk and their top-quality nature minimizes bankruptcy risk. In the more than 15 year history of money market mutual funds in the US, which now hold over \$300 billion, shareholders have experienced no capital losses. (Through swap-account-type arrangements, given the link to the US dollar, US Treasury paper could be held in the funds of the most risk averse.) Certainly, depositors willing to trade-off greater risk of changes in capital value for increased return may do so by choosing a more aggressive unit trust.

The structure of unit trust accounts, in contrast to bank accounts, can insulate the financial system from panic runs. There are no information asymmetries since the assets are frequently and publicly traded and priced. There is no credibility problem since there is no hidden reserve. There will be no incentive to try to get one's money out early as there is under a fractional-reserve bank. These favorable properties of money market mutual funds may be illustrated through an analogy between a bank run and an expected exchange rate devaluation. Consider the exchange rate between deposits and currency. In normal times, of course, it is one-to-one. If there are problems at a bank and a run is expected, people fear that the one-to-one exchange rate may not hold, that is, a run may force the bank to close its doors and pay-off at less than one dollar (or, similarly, delay redemption thereby rendering the value of a

deposit dollar today less than a currency dollar today). The concern about a prospective “devaluation” leads people to try to get out of deposits and into cash. Even if a depositor does not believe that there is any problem with the underlying assets of the bank, withdrawals by others may lead him to withdraw also; that is, the fears of a run may become self-fulfilling in this “me-first” payout system of fractional-reserve banks.

In contrast, there is no similar route for a self-fulfilling run at a mutual fund. Any “prospective” reduction in valuation will be reflected in current prices of the units. In addition, a shareholder will not withdraw if he simply sees others doing so. He is not left “holding the bag” after the assets of a fractional-reserve bank have been wiped out. On the contrary, he has a claim to an asset portfolio whose market value can be readily ascertained and expectations about the value of the assets will appear in prices.

While it may appear at first that the demand for stable nominal value of deposit accounts is so great that it would not be feasible to offer an alternative, it must be remembered that in a fractional-reserve system during “crisis” times a dollar in a bank deposit may not be worth a dollar. That is, a bank may fail or may become illiquid and delay redemption. Thus, individuals are faced with a general trade-off: accept some mild everyday capital value fluctuation and receive market rates of interest or receive below market rates of return in order to have stable nominal value deposits except in “crisis” times. The risk properties of money market mutual funds thus are much more like standard insurance contracts than deposits at banks: people are willing to accept a small deductible (everyday capital value fluctuation) in order to insure against the major losses (as in a banking crisis).

The expansion of money market funds would also have consequences for the development of the Hong Kong money market.

The growth of money market funds would add liquidity to the Hong Kong money markets. This growth will encourage financial innovations including repackaging and securitization of otherwise illiquid assets. With the inflow of more funds, the money markets would thus become more attractive to potential issuers. Naturally, as has occurred in the US, corporations may substitute money market issues of commercial paper for bank loans. Thus, the development of the Hong Kong money markets, which the introduction of money market accounts fosters, would provide competition to banks on both the asset side (for loans) and the liability side (for deposits) of the balance sheet.

VII. Obstacles to Money Market Mutual Funds

There are a number of barriers preventing the introduction of money market

mutual funds, particularly as a close substitute for current accounts. The guidelines set out by the Securities and Futures Commission (SFC) and its predecessors provide the regulatory framework within which money market mutual funds may operate in Hong Kong. After outlining these guidelines, we will discuss how the rules of the HKAB concerning the clearinghouse also play an important role.

First, there is a maturity restriction on the assets held in what the SFC calls "money market/cash management funds" versus "capital market funds." The former may hold "deposits or debt securities which have a remaining term to maturity of less than one year," while the latter may hold a mix of debt instruments with lengthier maturities. While this distinction is somewhat artificial, it does not appear to have been an important stumbling block.

Second, requirements to hold a minimum percent of assets with a bank or DTC -- a minimum of 20 percent prior to 1987 -- have been largely relaxed. Such requirements, while forcing the funds to have a high degree of liquidity, also restricted their return, which is their key competitive advantage over bank deposits. These liquidity restrictions, again, do not now appear to be a significant obstacle. Third, prudential limits on self-dealing and on investing no more than one-quarter of a fund's total assets in the obligations of any one entity, with eligible governments exempted and the SFC willing to grant permission to exceed the limit on a case-by-case basis, also does not present a major problem for the funds.

Fourth, there are restrictions on the contents of offering documents and advertising associated with money market funds. The units or shares must be differentiated from deposits with a bank or DTC and the possibility of value fluctuation clearly stated. Some of these guidelines, however, hamper the flow of useful information to the potential users, for example, by restricting direct comparisons of money market yields with those on rival account instruments. The use of words such as "cash" or "deposit" also are restricted.

Fifth, a quite significant obstacle to the success of money market mutual funds in Hong Kong is the HK\$50,000 minimum for each investor. This restriction dovetails with the minimum for circumventing the IRA controls through registered DTC deposits of at least three months maturity. The regulation of money market mutual funds is set up to support the IRA cartel. The wealthy investors have ways to circumvent the IRA through large deposits, so moderate-sized retail deposits would be a natural market for these accounts.

The "prudential" rationalization that the small investor should be protected from himself is seen to be quite hollow when an investor can go into the securities markets and purchase board-lots of equity or debt instruments for under HK\$10,000.

Since individuals can directly purchase the assets that would be held by money market mutual funds, they should certainly be permitted to enjoy the diversification and liquidity afforded by a fund at these or even lower levels of investment. In addition, this restriction also renders the money market funds a poor substitute for current accounts. Requiring the high minimum and having the unitholder subject to redemption if the holder's account falls below the HK\$50,000 floor makes the money market funds infeasible as current accounts except for those who always hold large amounts of very liquid wealth.

A more fundamental obstacle to the widespread use of money market accounts concerns access to the clearing mechanism. The HKAB's Clearing House will not accept as members institutions that deviate from the HKAB rules, such as paying market interest rates on all deposits. Access to the clearinghouse is the primary means by which the HKAB enforces practices in conformity with its rules. If such prohibitions were relaxed, cheques drawn on money market funds could be passed almost directly through the clearing mechanism (directly if the account provider is a bank and member of the clearinghouse) and eliminate any redemption or transfer delay vis-à-vis cheques drawn on current accounts. Direct clearinghouse membership for the money market mutual fund trustee or manager should not pose any particular trouble since the trustees, just as the member banks today, are responsible for the adequacy of the claims. Share drafts on money market mutual funds could be as readily acceptable as cheques.

VIII. Conclusions

The banking system of Hong Kong would be strengthened greatly by the elimination of the Interest Rate Agreement and an increase in public disclosure, particularly, revealing the inner reserves. This strengthening would be accompanied by a large improvement in the welfare of depositors as they would enjoy higher rates of return, feel more confident in the reserve position of the banks, and enjoy important financial innovations. The widespread adoption of money market accounts that could come with the end of the IRA and a relaxation of restrictions on their use could provide depositors with significantly improved returns, foster the growth of the money market which in turn may lower the cost of capital to enterprises, and improve the overall stability of the banking system by reducing its susceptibility to "panic" runs.

REFERENCES

Baring Securities. Hong Kong Banking Review. Hong Kong, February 1990.

Cheung, Stephen. "Rent Control and Housing Reconstruction: The Postwar Experience of Prewar Premises in Hong Kong." *Journal of Law and Economics* (April 1979).

Diamond, Douglas and Philip Dybvig. "Bank Runs, Deposit Insurance, and Liquidity." *Journal of Political Economy* (June 1983).

Ghose, T. K. *The Banking System of Hong Kong*. Singapore: Butterworth & Company, 1987.

Jao, Y. C. *Banking and Currency in Hong Kong*. London: Macmillan Press, 1974.

Jao, Y.C., ed. *Hong Kong's Banking System in Transition*. Hong Kong: Chinese Banks' Association Ltd., 1988.

Jensen, Michael. "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers." *American Economic Review* (May 1986).

Merrill Lynch Capital Markets. "Hong Kong and Shanghai Banking Corporation Limited," Global Securities Research and Economics Group, Hong Kong, May 1, 1990.

Morgan Stanley. "Midland Dilemma for Hongkong Bank," Hong Kong, June 1990.

CHINA AN ESTIMATE OF HK\$ CURRENCY CIRCULATING IN GUANG- DONG PROVINCE

With the opening up of the Chinese economy since 1978, the southernmost province of Guangdong has been developing very rapidly, especially in recent years. Guangdong Province, which borders on Hong Kong, has a population of approximately 65 million people. Since its people are Cantonese, like the people of Hong Kong, there is close contact with Hong Kong's free market environment. In the past decade Hong Kong people have invested heavily in manufacturing facilities in Guangdong and its two Special Economic Zones; Hong Kong has extensive trade links with Guangdong, and there are numerous Hong Kongers who either regularly visit relatives in Guangdong or who regularly send HK\$ remittances to relatives living there. In 1989 there were 15 million resident departures from Hong Kong to Guangdong. All these trade, investment and family contacts mean that HK dollars are frequently transferred to the mainland.

In view of (1) the low rates of return on Ren Min Bi (RMB) deposits, (2) China's inflation of 20-30% in 1988-89, (3) the two devaluations of the RMB in recent years (17% in 1986 and 21% in 1989), and (4) the comparative lack of alternative assets available given the severe restrictions on private ownership of assets in China, holding foreign currency is one of the few methods of hedging against inflation. As the holding of foreign currency by Chinese mainlanders became a fact of life and as the contacts with Hong Kong and the rest of the outside world were clearly going to increase year by year, the Chinese authorities have eased foreign exchange controls to permit foreign currency deposits to be held. Thus in Guangdong Province the Bank of China (BOC) has been accepting foreign currency deposits from PRC residents for over two years. Market interest rates are paid on these deposits, and withdrawals are said not to be restricted, although outward remittances are subject to detailed scrutiny and the normal foreign exchange controls. BOC deposits from domestic residents in foreign currencies reportedly exceed US\$2 billion, and Hong Kong dollar deposits account for a large part of these foreign currency deposits.

Parallel to these HK\$ deposits in mainland China there is also a substantial quantity of HK\$ cash currency (mainly banknotes) circulating in Guangdong Province, as well as in Beijing, Shanghai, and other commercial centres. Despite the fact that the Bank of China accepts foreign currency deposits, it is quite understandable that mainland Chinese should hold (and hoard) hard currency banknotes. Not only are China's foreign exchange controls subject to sudden and arbitrary change, but also since bank branches are relatively few and China is predominantly a cash society (the ratio of cash to GDP is as high as 15.2% -- see Charts 1 and 2), it is not surprising that PRC citizens should hoard foreign currency in the form of cash. The Bank of China unofficially estimates that HK\$3-5 billion is circulating or hoarded in China out of a total currency issue in Hong Kong of approximately HK\$40 billion.

To make an independent estimate this short paper will study the relationship between the currency issue in Hong Kong and nominal income, as well as the ratio of cash to nominal income for a number of other economies at comparable and at more advanced stages of development.

As a matter of history, this is by no means the first time that the people of

CHART 1
RATIOS OF CASH TO NOMINAL INCOME COMPARED TO PER CAPITA
INCOME FOR DEVELOPED ECONOMIES AND DEVELOPING ASIAN ECONOMIES

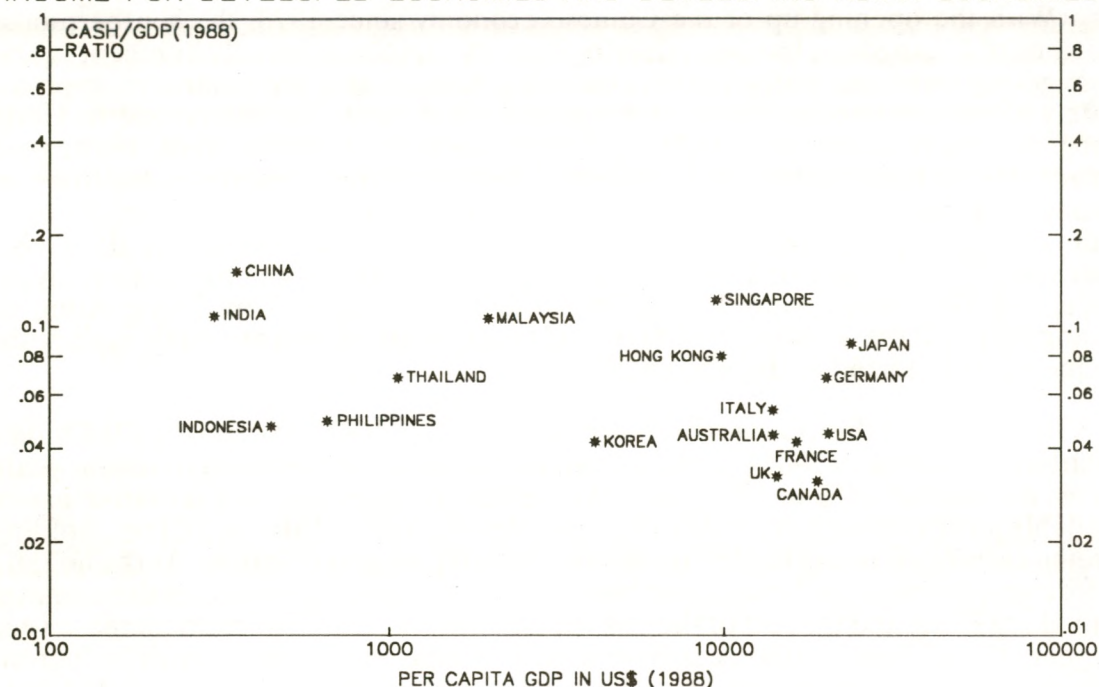
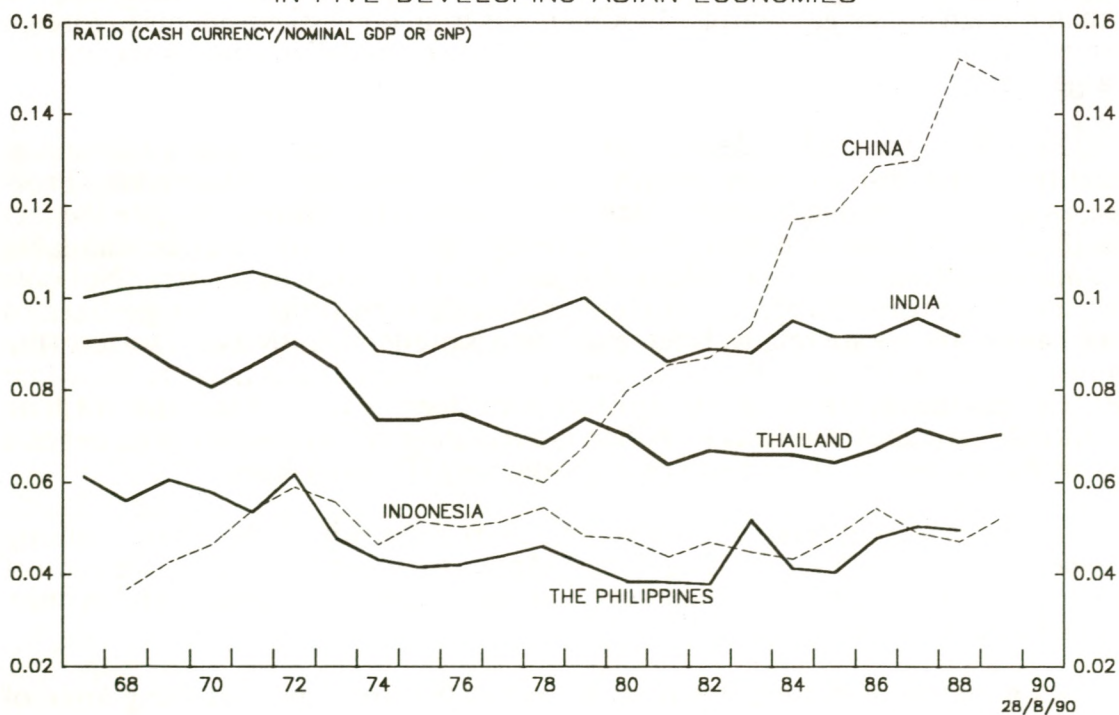


CHART 2
RATIO OF CASH TO NOMINAL INCOME
IN FIVE DEVELOPING ASIAN ECONOMIES



Guangdong have held foreign currency alongside their holdings of domestic currency. During the years of the silver standard up to 1935 Hong Kong dollar banknotes passed freely among the mainlanders because Hong Kong was itself on the silver standard and therefore Hong Kong dollar notes were simply a different form and sometimes a different denomination of what was essentially the same currency -- silver. Also, during the Japanese occupation of China and Hong Kong during World War II, Hong Kong dollars were the most popular currency notes in preference to either depreciating Chinese currency or Japanese occupation notes. After the war between 1945 and 1949 the Chinese currency was subjected to a massive hyperinflation, so once again Hong Kong currency -- which was then pegged to sterling -- circulated in southern China by virtue of its relative stability as a store of value. Not only did Hong Kong dollar currency notes circulate widely, but also cheques drawn on Hong Kong banks in Hong Kong dollars were passed from hand to hand and often endorsed many times with a 'chop' or stamp on the back until they returned from the mainland to Hong Kong for presentation just before the expiry of their six-month validity. Issuers of cheques in Hong Kong were in effect getting six months credit free of charge.

Before examining the question of the quantity of HK\$ circulating in China today we consider the relationship between cash and nominal income in various developed and developing economies. In most countries of the world the ratio of cash to nominal income displays a high degree of stability over long periods of time unless the country experiences major economic changes or disturbances, or hyper-inflationary conditions. Chart 3 shows the ratio of cash currency to nominal income for seven developed economies. In the early 1960s these ratios stood between 4% and 8% for six of the countries. The only exception was France which at the time was notorious for its people's widespread tax-evasion and their mistrust of banks and bureaucracy. By the 1980s the cash to nominal income ratio for France had come into line with that of other major countries, so that by 1988 the ratios for the USA, France, Australia, the UK and Canada were all between 3% and 5%.

It is well known that large amounts of US dollar currency circulate outside the United States, particularly in Latin America and in other trouble spots around the world. If one assumes that the "true" ratio of cash currency to nominal income within the USA is the same as the Canadian ratio of cash currency to nominal income, this would imply that all of the difference between the ratios for the two countries is explained by the circulation of US dollars outside the United States. The amount implied for 1989 is substantial: $(0.042 - 0.03) \times \text{US\$5,234 billion} = \text{US\$62.8 billion}$, or 23% of the average US currency issue during 1989.

In the case of West Germany (also shown in Chart 3) it is well known that substantial amounts of Deutschemark currency circulate in Eastern European economies, in much the same way as Hong Kong dollars circulate in China. The ratio of cash currency to nominal income for West Germany declined steadily from 6.9% in 1960 to 5.2% by 1973-74, since when it has stabilised and then risen quite significantly since 1985 to 6.5% in 1989. This was almost certainly due to the accelerating disintegration of Eastern European currencies in the late 1980s and the consequent increase in circulation of foreign currencies (especially DM) in these countries. Assuming the cash to nominal income ratio for West Germany had merely stabilised and not declined after 1974, this would suggest that in 1989 DM currency equivalent to 1.3% of 1989 nominal GNP or DM29.3 billion i.e. 18% of the total currency issue was

circulating outside West Germany.

The case of Japan is slightly different because the Japanese, on the whole, do not use cheques, but still use banknotes for payment of salaries and even use banknotes for the purchase of shares, bonds and real estate. For this reason the real estate and stock price booms of 1972-73 and 1986-89 show up clearly as upswings on the chart, and the trend of the ratio for Japan is (a) substantially higher than in other countries and (b) has tended to move upwards slightly rather than downwards as in the case of most other countries, reflecting the growing value of financial transactions relative to income as the country has grown richer.

Turning to the ratios of cash to nominal income for five newly industrialised countries of East Asia shown in Chart 4, the range of dispersion over the whole period 1967-89 is greater than for the seven developed economies with the ratios spread between 3% and 16%, but there are some familiar themes. The ratios for Hong Kong and South Korea have declined over time, particularly in the case of Hong Kong, less so in the case of Korea. Taiwan's ratio, like Japan's, has risen gradually over the years from 6% in 1969 to 11% in 1988-89, and again the stock market and real estate booms of 1972-73 and 1986-89 are prominent because the Taiwanese like the Japanese, tend to use cash currency rather than cheques for a wide variety of transactions including purchases of stocks and real estate. Malaysia had a gently rising trend until 1975, since when it has been fairly flat, though with a marked decline in 1984-85 when the economy experienced a recession along with Singapore. Finally Singapore's ratio has fluctuated in the range 12% to 16%, rising between 1967 and 1978-79, and apparently declining thereafter. The high level of the ratio for Singapore is almost certainly due to the extensive circulation of Singapore dollars outside Singapore. Until May 1973 the Singapore dollar and the Malaysian dollar or Ringgit were interchangeable, so Singapore banknotes and coin circulated widely in Malaysia. Also, as a result of the Indonesian hyperinflation in the years 1965-66 and the numerous subsequent devaluations of the Indonesian rupiah, citizens of that country habitually hold quantities of Singapore dollars, US dollars and probably other currencies too.

The ratio of cash to nominal income in Hong Kong reproduced in Chart 5 is of special interest both because of its strong downward trend during the period 1966-84, and because of its upward shift since 1984. The strong downward trend from around 14% in the late 1960s to just above 6% by 1984 is reminiscent of the experience of France referred to earlier, but is more likely to be explained by Hong Kong's very rapid income growth during these years as well as the strong growth of the financial sector as a major part of Hong Kong's economy than by the sort of factors which were prevalent in France. It is also notable that the cash to nominal income ratio had fallen to almost 6% by 1984, comparable to the levels of the US or the UK in the late 1960s, or Germany and France in the late 1970s.

Throughout the post-war years Hong Kong currency has circulated freely in Macau. Although Macau has a law prohibiting the use of foreign currency in the Portuguese enclave, the fact is that Hong Kong dollars circulate interchangeably with Macau patacas, and as at the end of 1988 Hong Kong dollar deposits at the banks in Macau exceeded local currency by a ratio of 3.4:1. Demand deposits in Hong Kong dollars, however, only exceeded demand deposits in patacas by a ratio of 1.6:1. There are no official estimates of the quantity of HK\$ currency circulating in Macau, but we will assume that they also bear the same ratio to patacas as demand deposits. Taking

CHART 3
RATIO OF CASH TO NOMINAL INCOME FOR 7 DEVELOPED COUNTRIES

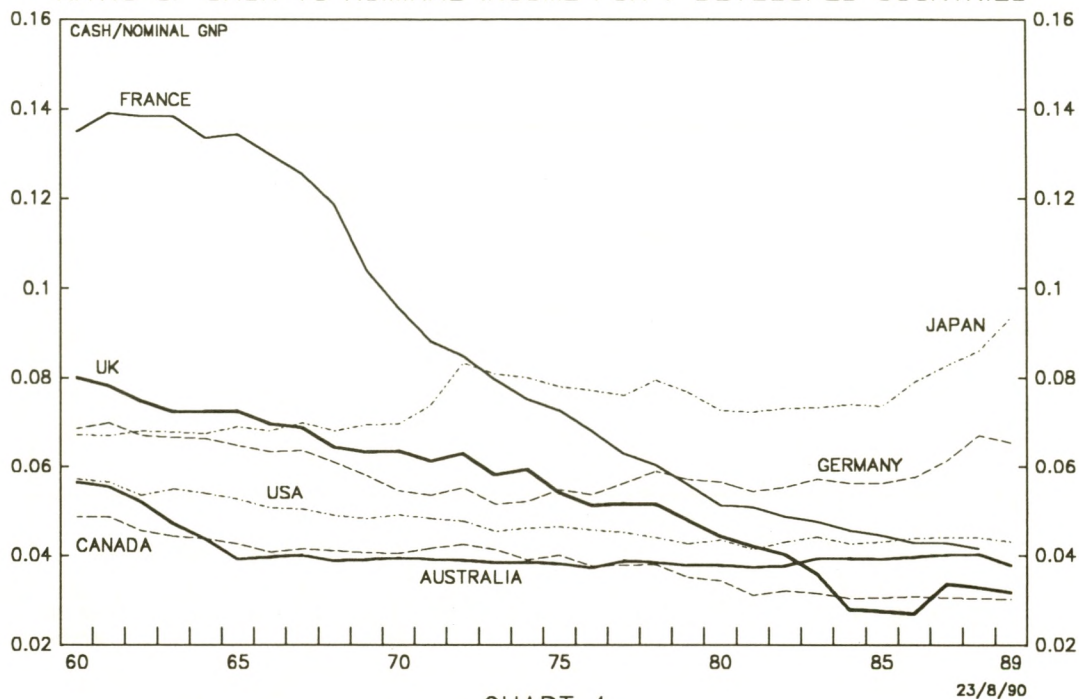


CHART 4
RATIO OF CASH TO NOMINAL INCOME
IN FIVE NEWLY INDUSTRIALISED ASIAN ECONOMIES

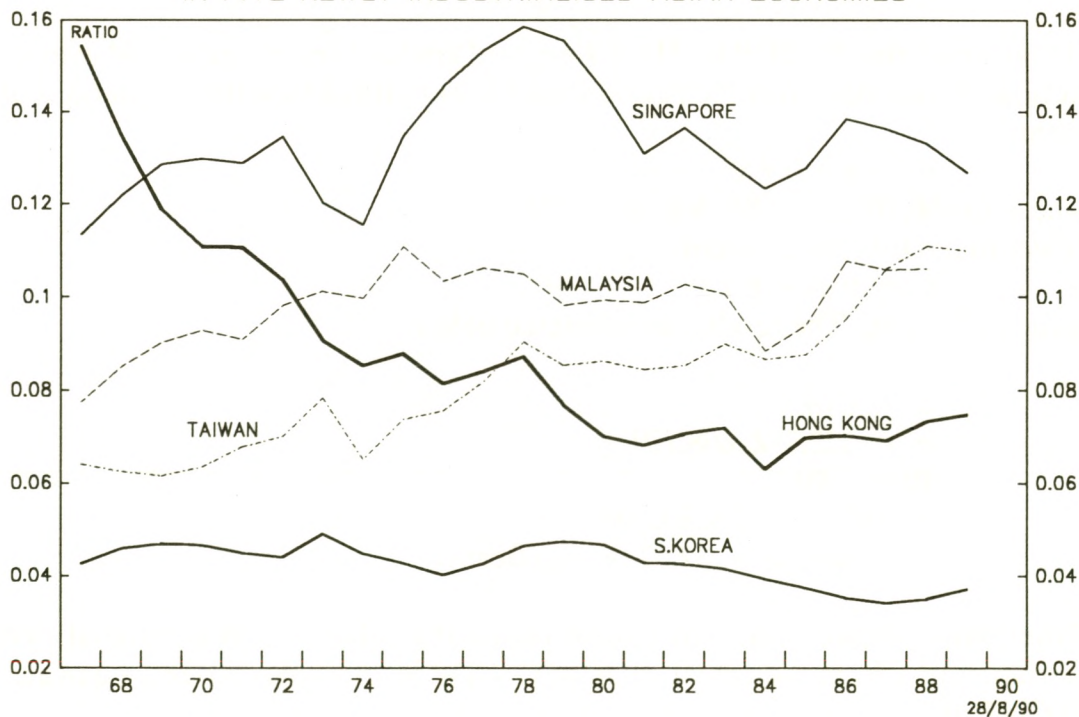
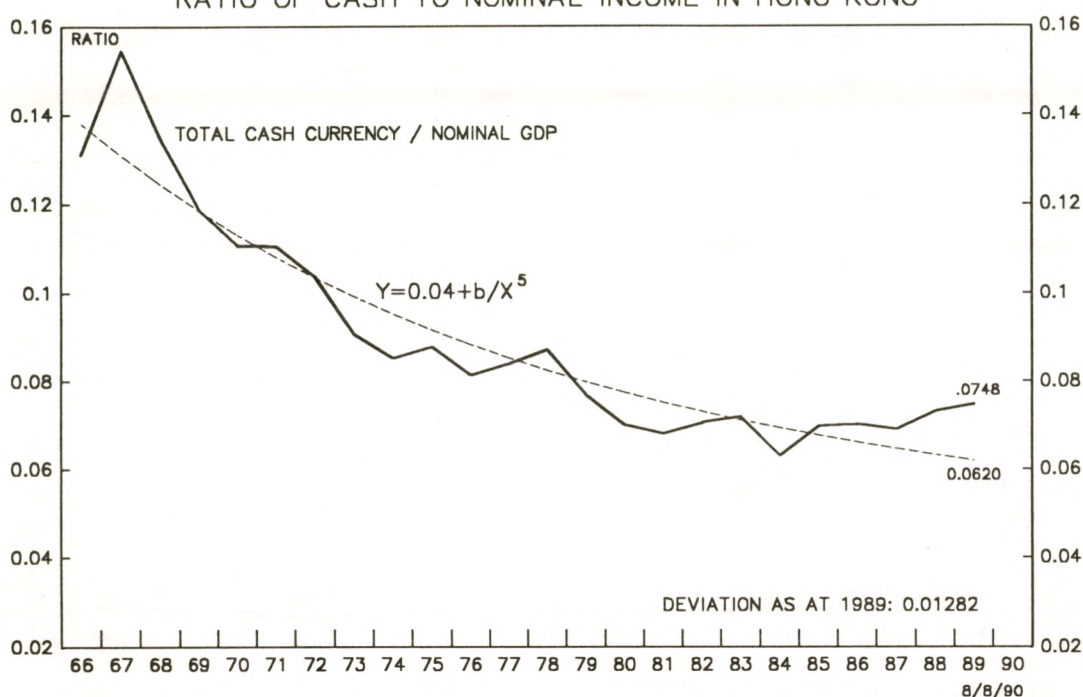


CHART 5
RATIO OF CASH TO NOMINAL INCOME IN HONG KONG



ESTIMATION PROCEDURE

It is assumed that C/GDP for Hong Kong will gradually converge to 0.04 over a long period. Actual data over the period 1966-84 were fitted to various equations of the form

$$y = a + b / x^n$$

where x is 66, 67 84, with a = 0.04.

It was found that the equation

$$y = 0.04 + b / x^5$$

gave the best fit. The results are tabulated below:

$$a = 0.04$$

$$b = 122,792,608.729$$

$$R^2 = 0.90$$

$$SE(b) = 3,758,802.895$$

$$t - \text{Statistic} = 32.67 \text{ (v. significant)}$$

When this equation was used to extrapolate the value of y, it was found that the deviation of y from the actual value of C/GDP in 1989 was 0.01282, equivalent to HK\$6.3 bn.

the current Hong Kong currency issue as approximately HK\$40 billion, and the currency issue in Macau as approximately 550 million patacas, this would imply that roughly HK\$880 million are circulating in Macau. However, the ratio of HK\$ currency to patacas circulating in Macau is unlikely to have changed much over the years, so this would suggest that the 'true' cash to nominal income ratio for Hong Kong was simply marginally lower throughout the period represented in Charts 4 and 5. The circulation of Hong Kong dollars in Macau provides no explanation for the upward shift in Hong Kong's ratio of cash to nominal income since 1984.

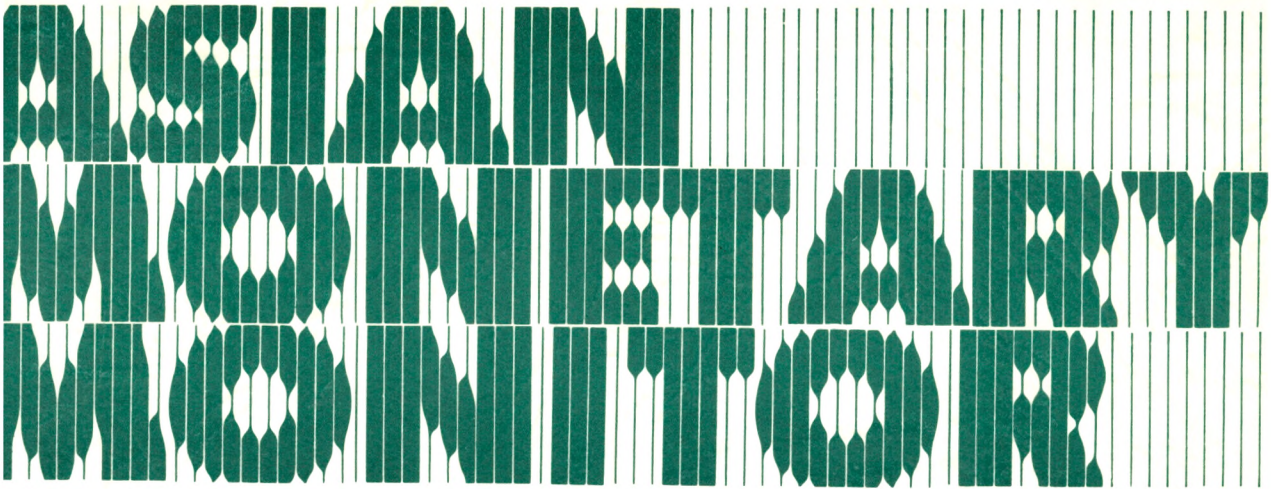
The primary explanation for the recent upward shift in the ratio of Hong Kong dollar cash to nominal income must be found in the rapid rise in incomes in China (especially Guangdong) since 1978 when China's modernisation and open-door policies were initiated, and the associated increase of Hong Kong dollars circulating on the mainland. To estimate the quantity of Hong Kong dollars circulating in China we hypothesise that Hong Kong's ratio of currency to nominal income would gradually converge to the ratio prevalent in other developed economies as incomes in Hong Kong rose. By 1984 that ratio had reached 6% compared with ratios in the range 3% to 5% for five of the seven developed countries discussed earlier and shown in Chart 3. Fitting a curve of the form $y = a + b / x^2$ to the data for Hong Kong over the years 1966-1984 where a is assumed to be 4% gives an estimate of y which converges asymptotically to 4%. Extrapolating the curve forward for 1985-89 gives a prediction of the ratio of Hong Kong currency to nominal income based on the supposition that no currency was circulating in China (see Chart 5). Making an adjustment for HK\$ currency circulating in Macau, this technique yields an estimate of the increase in the cash to nominal income ratio due to the circulation of HK\$ currency in China. The deviation of the actual ratio from the predicted ratio suggests that some HK\$6.3 billion is circulating in China, somewhat more than the amount unofficially estimated by Bank of China sources.

Based on a population of 65 million for Guangdong and ignoring that part of the HK\$ currency which may be circulating or may be hoarded elsewhere in China, this implies per capita holdings of about HK\$97 equivalent to US\$12.50, or roughly 2% of the annual per capita income in Guangdong (which was RMB 1,978 or US\$573 in 1988).

(Date: as at end 1989)	<u>HK\$ billion</u>	<u>%</u>
Total Hong Kong Dollar Currency Issue	40	100
Estimated circulation of HK\$ in Macau	0.88	2.2
Estimated circulation of HK\$ in China	6.3	15.75
Actual HK\$ currency held by banks in Hong Kong	5.5	13.75
Net circulation of HK\$ currency in Hong Kong	27.32	68.30

SUMMARY AND CONCLUSION : US dollar banknotes circulate widely in many countries with unstable currencies or high levels of taxation and burdensome regulations -- conditions which encourage the emergence of a "black" economy (i.e. "underground" activity outside the reach of government controls). In the same way, DM currency circulates widely in Eastern Europe. Similarly, Hong Kong dollars circulate in mainland China, particularly in Guangdong. This is partly a result of close relations between Hong Kong and Guangdong through trade, investment, tourism and family contacts, but it is also due to the relative lack of available assets in China which can enable the ordinary individual to hedge against inflation or devaluation. Based on the experience of developed and developing countries, as well as past trends of behaviour in Hong Kong, it can be estimated that as much as HK\$6.3 billion or about 16% of the total issued currency in Hong Kong may be circulating in China.





CONTENTS

	Page
HONG KONG	
Developments in the Capital Markets by Simon Ogus	1
INDONESIA	
Deregulation and Growth by Andrew Freris	11
S. KOREA	
Monetary Injection of December 1989 Postpones Proper Adjustment by John Greenwood	34
ECONOMIC CAPSULES	
Philippines: Devaluation is Required	SLO 44
Taiwan: Inflation or Stagflation?	SLO 46





**Asian Monetary Monitor is a
publication of the G.T. group of companies**



John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Simon L. Ogus
Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 129 Hong Kong.

ASIAN MONETARY MONITOR

September - October, 1990

Vol.14 No.5

HONG KONG DEVELOPMENTS IN THE CAPITAL MARKETS

In Hong Kong the term "capital" is used to describe all non-equity instruments whereas it is often used to describe both debt and equity elsewhere. In this article the Hong Kong definition is used.

On a first examination, it may seem strange to the investor that in the issuing of debt, the large and vibrant financial markets of Hong Kong have remained underdeveloped. This is especially true of the long end of the market which is reflected in the lack of a true Hong Kong yield curve. This article examines the evolution of the market for debt instruments in Hong Kong offering reasons for its relative underdevelopment, and discusses the prospects for future innovations and developments.

The Hong Kong capital market is dominated by the banks and the Deposit Taking Companies (DTCs). A previous article in AMM (Vol. 14 No. 1 January-February 1990), "Hong Kong: The Dynamics of the Deposits and Loans Markets", demonstrated that both the number of DTCs and their share of both HK\$ denominated and all other deposits are declining and are likely to continue to do so. This has forced many of the DTCs out of the market and those remaining are now diversifying their activities and offering an increasing number and variety of debt instruments. A further boost to this hitherto underdeveloped sector was the introduction of Exchange Fund Bills in March 1990. However, the corporate debt market, with the exception of short term issues such as commercial paper, remains both negligible and thinly traded. The question therefore arises as to whether developments in the banking system will result in substantial changes in the corporate sector, and the emergence of a true bond market.

The three tier system of financial intermediaries has been reformed twice since its 1981 inception, in 1986 and more recently in 1989. In its latest form, the system distinguishes between licensed banks both foreign and local, Restricted Licensed Banks (RLBs) and DTCs. Licensed banks can offer the full range of banking businesses whereas the other two tiers are restricted in their operations. RLBs cannot offer savings accounts or accept deposits of less than HK\$500,000 (or equivalent in foreign currency) whilst DTCs cannot accept deposits of less than three months or less than HK\$100,000 (or foreign equivalent). Both RLBs and DTCs are also subject to minimum share capital requirements of HK\$150 million and HK\$25 million respectively.

The major reason for the introduction of the three tier system was the wish of the Hong Kong Government to protect the position of its key monetary policy instrument of the time, the Interest Rate Agreement (IRA). This primacy of the IRA has now been superseded by the exchange rate peg. The IRA was implemented on July 1st 1964 to terminate the cut-throat "interest rate war" of the early 1960s and to protect

the smaller local banks. Licensed banks were initially divided into five categories, since amended to two, and the members of each category are obliged to offer the same interest rate on HK\$ time deposits of less than HK\$500,000. Currently the two categories are separated from each other by a fixed increment in rates. For HK\$ savings deposits, each bank must offer the same rate, irrespective of its category, while HK\$ demand deposits must carry a zero interest rate. However, it seems likely that this division of banks into two categories will soon be scrapped. The Government has requested this of the Hongkong Association of Banks in order to avoid criticism under an expanding GATT and they seem certain to comply. Nevertheless, the IRA itself will remain. It should also be noted that the IRA does not cover foreign currency deposits and that the ratio of foreign to HK\$ denominated deposits is rising (see AMM op. cit.).

Prior to 1981, DTCs were able to accept deposits other than checkable current accounts and offer other banking services, but outside of the auspices of the IRA. As a result, banks were using subsidiary DTCs to gather deposits not covered by the IRA and were consequently eroding their own deposit bases. This in turn was diminishing the effectiveness of the IRA to act as a tool of government monetary policy -- hence the decision to introduce the three tier system. Criticisms have been levelled against the IRA, notably that it creates a price-fixing cartel and distorts the market mechanism. This leads to a sub-optimal allocation of resources, inefficiencies and bad management. Opponents argue that it has also not prevented the swallowing up of a large number of small local banks by large predators and has resulted in a bias against small depositors who receive below market rates of return. Nevertheless, with the HK\$ rigidly pegged to the US\$, the authorities have little scope for independent monetary policy. What little discretion they do retain is exercised to maintain control over interest rates. This is achieved in relation to retail deposits via the IRA, and in relation to the wholesale money markets by the issuing of Exchange Fund Bills and by the changing of the Hongkong and Shanghai Bank's reserve requirements at the Exchange Fund.

The implementation of the three tier system had the effect of excluding the DTCs from the retail market and reducing their ability to act as a cheap source of funds for parent banks. Therefore, those DTCs that survived had to turn to other activities. As a result, DTCs and by implication their parent banks became closely identified with the development of the debt market.

Although the debt market has grown rapidly in absolute terms to over HK\$35 billion, in relative terms total outstanding HK\$ denominated issues are equivalent to only 2.5% of total Eurobond issues. If one includes other Eurodollar and Eurocurrency issues, total HK\$ paper is negligible. Why is this so?

Firstly, the high profile and active Hong Kong equity market has given firms relatively easy access to funds and they have thus felt little need to raise debt. Similarly, the private investor has become accustomed to investing in equity, while equity managers and brokers, keen to preserve superior commissions, have done little to change perceptions. These low levels of supply and demand for debt can only be increased, therefore, by institutional innovations designed to cause shifts in public awareness and overcome corporate wariness of potential loss of flexibility over payouts to debt holders. Furthermore, overseas investors perceive Hong Kong as a

relatively high risk market offering potentially superior returns. However, the exchange rate peg implies a strong coincidence of Hong Kong and US interest rates. Therefore, Hong Kong debt is seen to offer a similar return to US paper but with a risk premium, reflected in the Single A rating of Hong Kong Government paper.

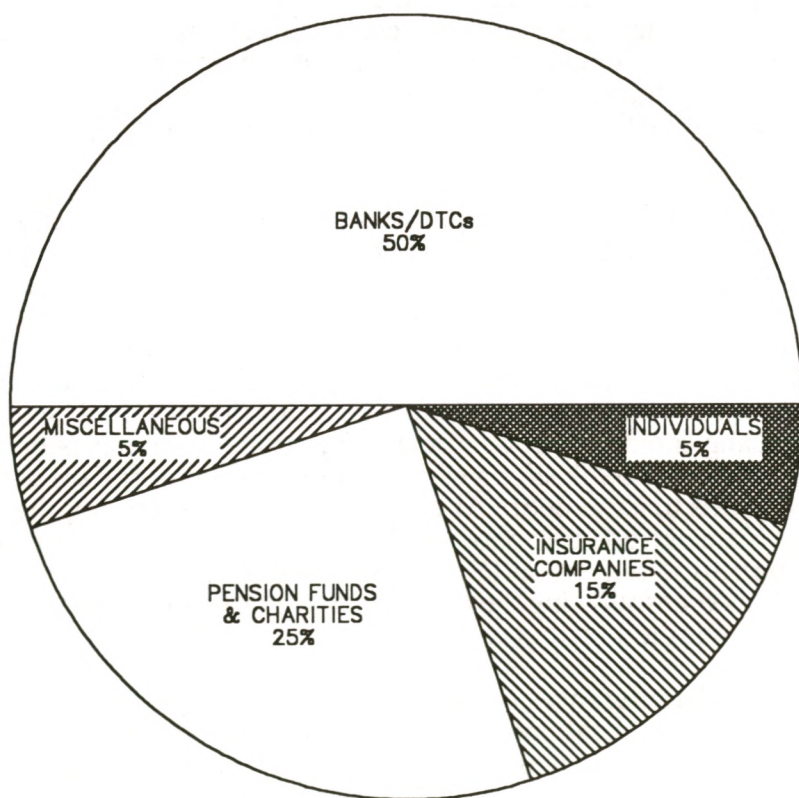
Secondly, due to its balanced budget strategy, the Hong Kong Government avoids issuing debt except when it incurs unexpectedly large deficits. Government bonds have only been issued twice, during fiscal years 1975-76 (6 1/2% coupon, matured 1980) and 1984-85 (10% coupon, matured 1989), raising sums of HK\$250 million and HK\$1 billion respectively, and the Government seems to have little inclination to make further issues. In other major capital markets, government bonds provide a benchmark for assessing relative yields and risk due to their high degree of liquidity and almost risk-free rating. This in turn indicates interest rate trends and thus pricing to the corporate issuer, according to his own credit rating. The lack of government issues coupled with the non-existence of a Hong Kong rating system has contributed to the market's underdevelopment. Corporates have to forecast interest rate trends without a government indicator and are required to have their issues approved by the Securities Commission. As a result, the current issuers are only sizeable companies that are highly reputable and financially solid. A further corollary of the above is that issuing debt in Hong Kong is very expensive (it is estimated that it costs HK\$1 million to issue bonds compared to HK\$600,000 in Europe, although CD issue costs in Hong Kong are very competitive) and some large firms have therefore chosen to raise funds abroad. Even in cases where raising debt finance costs less than bank borrowing, many companies prefer to incur the higher costs of the latter due to long term relationships and the ease and flexibility of arranging and structuring repayments.

Thirdly, as previously mentioned, the desire to maintain the IRA and the peg between the HK\$ and the US\$ has made the Hong Kong Government very cautious about developments in the capital markets that could undermine these policies. This has hindered the development of both the long and short ends of the market. In the mid 1980s, the government refused permission to the World Bank to issue HK\$ denominated bonds citing its resistance to the HK\$ becoming an "international investment currency", and expressing fears that funds raised would be used outside of Hong Kong causing capital outflows. Belatedly, this decision has been reversed and it has allowed the World Bank, along with other overseas enterprises with substantial Hong Kong interests to issue debt. At the short end of the market, the Government has limited the issue of tradeable paper with yields or maturities outside of the ranges of the IRA. The postponement of the introduction of an interest rate futures contract to February of this year following the October 1987 crash, and as a result the scope for arbitrage, has also limited further developments.

A fourth set of hinderances to capital market development is the lack of a true secondary market. In general, most issues tend to be oversubscribed, and then held to maturity by the allocated investor. This is usually a bank or a large institution as many of the issues tend to be placed. As an example, an estimate puts the figure for Fixed Rate CDs never traded as 50%, with a further 45% locked away in the three months following issue. The result is that turnover is pitifully thin ranging from HK\$50 million to a maximum of HK\$500 million a day. Given that Fixed Rate CDs are usually traded in lots of HK\$5 million this implies a maximum of only 100 trades a day. The lack of supply of Fixed Rate CDs to the secondary market and the rules

prohibiting market makers from running short positions ensure that many issues are simply never traded and have no quoted offer price. Indeed when periodical secondary activity occurs it often involves the switching of paper between institutions at the time of a new issue. Moreover, the minimum face value of debt instruments (one bond averages HK\$250,000, Commercial Paper, CDs and FRNs are issued in lots of HK\$500,000) also precludes the small investor from the market and further reduces secondary activity. However, it should be noted that recent bond issues with lots of between HK\$10,000 and HK\$50,000 have also failed to stimulate small investor interest. Chart 1 gives a breakdown of HK\$ debt by holder. The result of this lack of secondary activity has been to reduce the number of market makers to 13, with one dominant player responsible for over 50% of turnover and 30% of new issues. The number would probably be nearer 5 but for the introduction of Exchange Fund Bills.

HONG KONG: CHART 1
HK\$ DEBT BY HOLDER



AS AT END 1989

Finally, prior to April 1st 1989, there existed an anomaly between the taxation treatment of commercially issued and bank issued paper. Privately issued paper was subject to a withholding tax whilst bank interest was tax-free. This increased the corporate cost of debt as companies were forced to offer higher yields to offset their tax disadvantage. HK\$ corporate debt was further disadvantaged by the tax exempt status of non-HK\$ assets. It will be interesting to see if the abolition of the withholding tax in the 1989 budget will stimulate corporate debt growth, although the anomaly of a profit tax levied on the income arising from HK\$ assets only remains a severe obstacle to be overcome. The Government's position is that they are sympathetic to HK\$ issuers but do not want to incur the revenue loss. This appears to be a strange position as most issuers avoid the market totally and engage in swap transactions. The revenue generated by the tax is therefore small.

The rapid expansion over the last decade, in absolute terms, of the HK debt market has resulted in the emergence of many new types of debt instruments. Patterns of issue over 1984-90 and a breakdown of fixed rate paper by maturity are shown in Table 1 and Chart 2, respectively. A discussion of these different instruments now follows.

TABLE 1

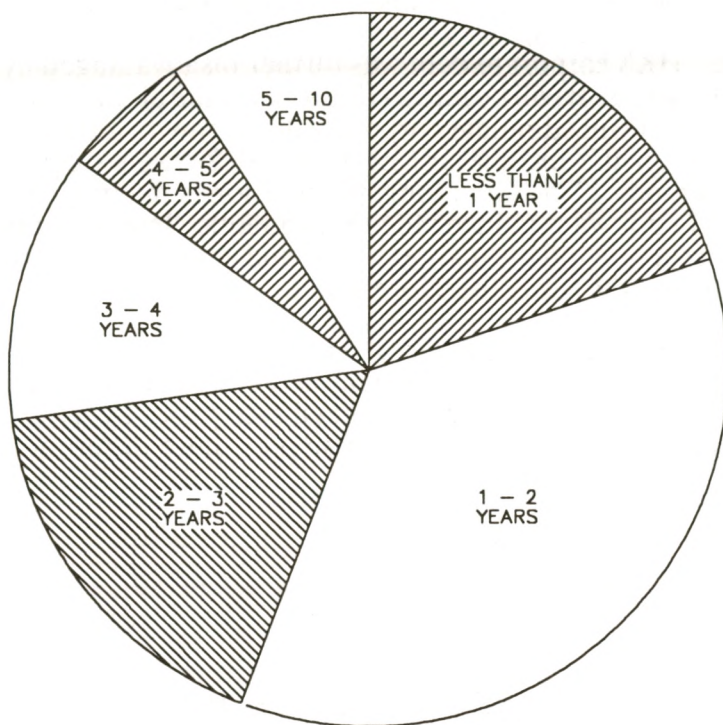
CAPITAL MARKET ISSUES 1984-90 (HK\$ MILLION)

	Fixed Rate CD	Floating Rate CD	FRN	CP	Bond	TLC	Bond Warrant	Exchange Fund Bill	Total
1984	260	1,425	500	2,400	-	-	-	-	4,585
1985	6,285	1,710	1,110	8,800	1,000	-	-	-	18,905
1986	11,156	1,250	2,250	2,635	2,262	-	1,588	-	21,141
1987	3,316	2,299	400	7,180	2,000	4,120	-	-	19,315
1988	3,615	750	-	3,750	1,891	1,690	-	-	11,696
1989	2,670	2,150	-	2,100	1,397	6,300	-	-	14,617
1990 ¹	2,755	1,900	N/A ²	1,660	920	N/A ²	-	3,500	10,735

¹ Figures to September 1990

² Figures not available

HONG KONG: CHART 2
HK\$ FIXED RATE CDs AND BONDS BY MATURITY



TOTAL PAPER OUTSTANDING: HK\$ Mn 26,874
AS AT FEBRUARY 1, 1990

The Hong Kong debt market up to 1979 consisted solely of highly Liquid Bankers Acceptance Paper and Bills of Exchange. These were introduced by the “exchange banks” during the 1850s to facilitate triangular trading involving Britain, India and China. With these instruments, banks accept the bills of importers and exporters at a discount and assure their ultimate payment. This market remains highly active.

In 1979, the Mass Transit Railway (MTR), a wholly government-owned corporation, issued the first Commercial Paper (CP). The MTR was also responsible for the first issue of HK\$ FRNs in 1984.

CP is similar to a bond but is issued for a shorter period, normally with a life of between 7 and 365 days. In Hong Kong, CP is usually underwritten by and distributed through a tendering panel of banks. The facility also tends to be long term as successive short-term borrowings are linked on a roll-over basis. Indeed most Hong Kong CP is issued under a revolving underwriting facility (RUF) where banks guarantee to buy the paper if they fail to sell it to other investors.

An FRN is a hybrid of a medium to long term bond and a bank loan. It is issued for a fixed maturity (although often callable early) and matures at par but pays interest linked to a quoted rate such as HIBOR or LIBOR. Sophisticated FRNs have also been issued with caps and/or floors.

Transferrable Loan Certificates (TLCs) "securitize" a loan transaction to facilitate the transfer of these assets between financial institutions. TLCs were launched in 1987 and in 1989 the value of TLCs issued exceeded that of any other capital market instrument.

Negotiable CDs or more commonly just CDs are similar to fixed deposits except that they can be transferred or cashed in at any time. They can be issued for maturities ranging from three months with roll-over facilities, to five years, and with fixed or floating coupons. The market for CDs, therefore, should be highly liquid but in Hong Kong the secondary market has been restricted by the tendency for institutions especially banks and DTCs to hold the CDs to maturity. Banks have always held a sizeable proportion of the CDs issued. For example, they currently hold around 50% of the total issues of fixed rate CDs although this has fallen from an average of over 80% in 1986. The result has been an illiquid market, lacking in breadth and depth and therefore subject to high volatility. An illustration of the dangers of this bank driven market is the virtual collapse of the fixed rate CD market in March 1987. The fall in HK\$ interest rates in the three years to March 1987 had caused many borrowers to switch from floating rate to fixed rate CDs. Banks facilitated these change-overs by arranging swaps and this resulted in an over-supply of fixed rate CDs and increases in the discounts offered at issue. The banks themselves were keen to hold these CDs in the expectation of capital gains and borrowed in the interbank market to finance their purchases. When interest rates started to rise again in 1987, banks with open positions and maturity mismatches tried to sell their holdings, but with no buyers the market ground to a halt. The market has yet to truly recover and although investors may still wish to hold fixed rate CDs, there are relatively few issues.

Perhaps the least developed part of the Hong Kong debt market is the bond sector. With no current government issues in circulation, the bond sector is restricted to 11 corporate bonds of which 7 are hybrid instruments. As remarked upon previously, this is a result of the lack of a benchmark, the lack of a rating system, high issue costs and taxation anomalies.

In response to the supply and demand deficiencies of the market and to stimulate interest in the debt market as a whole, institutions have started to offer a variety of more complex instruments. Bull and bear bonds are linked to a commodity or an instrument and like an ordinary bond offer stable annual yields. However the issue is divided into bull bonds which increase in value as the linked market rises, and bear bonds which increase in value in a falling market. Thus an investor takes a risk on the capital value of his bond depending on his beliefs but still receives a stable return, albeit lower than that from an ordinary bond. For the issuing company, bull and bear bonds offer the prospect of raising funds at lower cost, but with no increased risk, given that an equal amount of bull and bear bonds are issued. Hybrid debt/equity issues have also started to appear with the launch of Hong Kong's first convertible bond (Lai Sun 6 1/4%, 1995) and redeemable preference shares (JSH). So far the response to these issues has been relatively muted. Cross rate notes are a recent development at the short end of the market. For example a company borrows at three-month interbank rates but makes its payments monthly. The bank profits as three-month rates normally exceed one-month rates and can accordingly accept a narrower bid/offer spread. This in turn reduces the funding costs of the company.

Finally, even the Hong Kong Government seems to have recognised the need to promote a healthy capital market reflected in its decisions to abolish withholding tax and to introduce Exchange Fund Bills. The full workings of these instruments are described in AMM (Vol. 14 No. 2 March-April 1990) "The Exchange Fund and Monetary Policy". However, their introduction has given the Government a further tool of monetary policy, one with which they can manipulate interest rates within narrow margins without undermining the exchange rate peg. Furthermore, both the Government and issuers of capital hope that they will also encourage the development of the capital markets by providing sovereign benchmark yields at the short end of the market. The Government appears to wish to encourage an active secondary market, reflected in regulations that require Market Makers to quote bid and offer yields in all bills (whether or not the Market Maker holds the bills), with a recommended maximum spread of 10 basis points. Market Makers are also allowed to run short positions in any bills as long as their net position in all bills is not short.

Nevertheless, Exchange Fund Bills are by no means perfect instruments. Firstly, they cannot truly be classified as government debt as they are issued for "the account of" the Exchange Fund. Bill holders' only recourse is to the Fund itself which can, in theory, be wound up at any time by the Government. Secondly, although profits from Exchange Fund Bills are exempt from local profit tax, the costs of raising funds to purchase bills are not tax-deductible. Retail banks with their pool of deposits do not need to borrow to fund their bill purchases and therefore enjoy the full tax benefits. However, for other institutions, swap deposits generally offer a superior HK\$ investment. This creates a false market which tends to only involve the retail banks. Thirdly, yields on Exchange Fund Bills are on average 15 basis points less than HIBID. This is clearly advantageous for the Government which effectively borrows at a discount but the question arises as to why institutions are prepared to incur an unrealistic loss on lending.

Naturally, the Government has been encouraged by the response to its bill auctions which have all been well oversubscribed. It has also indicated that it may issue bills with maturities of up to 12 months compared to the present 3 month maturities and the 6 month maturities to be introduced in October. However, there seems no indication that it intends to issue longer dated government securities. Although discussions are under way about the Government's HK\$127 billion infrastructure programme, it is unclear if it intends to draw on its substantial reserves or issue new debt. Whether corporates will choose to raise funds for these projects via debt also remains to be seen. Similarly, Government plans to develop a pension fund market should be advantageous for debt issues. However, stimulating interest for long term debt against the background of the uncertainties of 1997 may well be difficult.

HONG KONG: CHART 3
HK\$ FIXED RATE YIELD CURVE

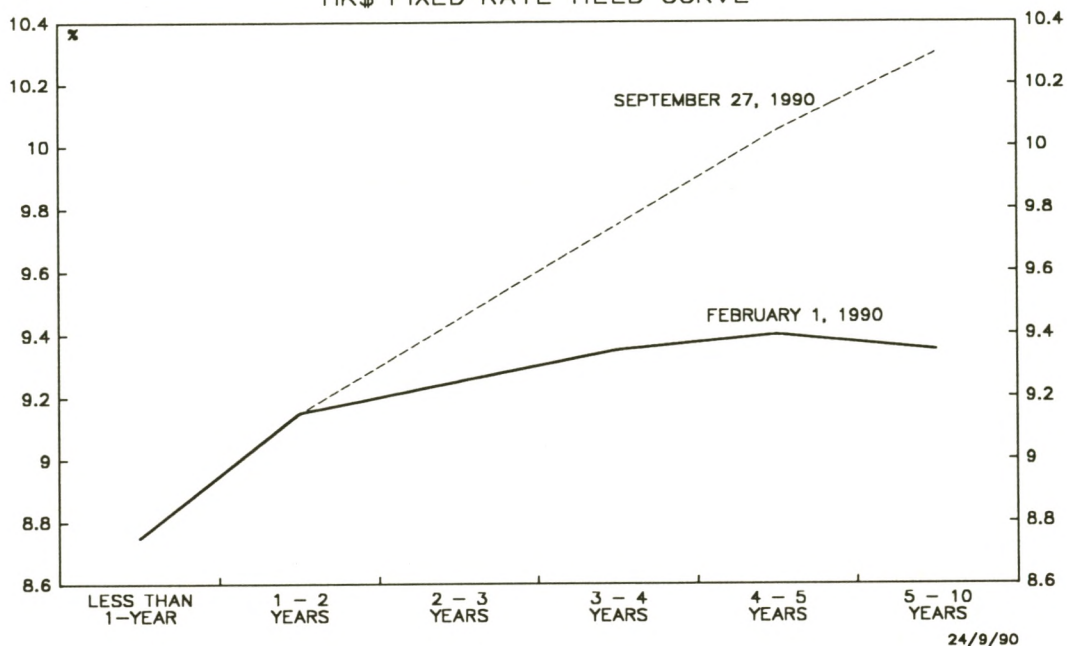


CHART 4
HONG KONG INTERBANK RATES



SUMMARY/FORECAST: The capital markets of Hong Kong remain underdeveloped due to a variety of reasons. These include the strength of investor and institutional attachment to equity, their high risk perception of Hong Kong paper and the lack of a true secondary market. In addition, until recently the Government has done little to promote capital market development issuing few government bonds, maintaining tax anomalies and preventing the issue of paper that might undermine the IRA. Nevertheless, the changing attitude of the Hong Kong Government to the capital markets is reflected in its introduction of Exchange Fund Bills and the abolition of withholding tax. Coupled with institutional innovations such as bull and bear bonds, hybrid debt/equity instruments and cross rate notes, this should stimulate the development of the Hong Kong capital markets. Foremost in leading the market should be the RLBs and DTCs who need to widen their product base to ensure survival. However, the corporate and investor attachment to equity and the anomaly between the tax treatment of HK\$ and overseas debt still remain major obstacles to be overcome. The volume of capital market issues has fallen from the levels of oversupply in 1986 to a situation of undersupply. In addition the secondary market remains stagnant. These problems will be compounded during 1991 when over HK\$10 billion of paper matures. Whether the planned infrastructure programme and development of the pension fund market will cause this paper to be replaced and levels of issuance to rise again largely depends on investor sentiment concerning 1997. Naturally, investors purchasing paper maturing post 1997 will demand a risk premium but the extent of the premium is as yet unclear and markets are still in the process of determining "fair" returns. This is reflected in changes in the implied yield curve for fixed rate paper over this year compared to trends in short interest rates.

INDONESIA DEREGULATION AND GROWTH

Introduction

In the early 1980s Indonesia launched a number of reforms and policies designed to deregulate and liberalise its financial and international trade sectors. The aims of these policies were to restructure the economy, particularly the oil-dependent export sector, by emphasising the role of markets rather than the state in resource allocation. Indonesia's experience with these policies, their success or failure in achieving their stated aims, and the future path of the economy, of this the fifth most populous country in the world, are of key importance and interest to the region. There are fascinating parallels with other countries regarding the background against which Indonesia charted its development course. Perhaps the most obvious is that of Chile which also emerged from a period of left-wing upheaval dependent on a single export commodity (copper c.f. Indonesia's oil) and which also relied for its economic renaissance on liberal i.e. pro-market policies. Countries in the Asian area such as the Philippines, and to a lesser extent Malaysia and Thailand, may also be able to draw useful lessons from Indonesia's experience so far.

Table 1 outlines the chronology of the economic reform measures. These are separated into three main sections covering external trade, banking and finance. It is important to emphasise that the timing of these reforms was not accidental. A previous AMM study (Vol. 2 Nos 2 and 3) outlined the convulsions Indonesia underwent during the postwar and postcolonial era in the hands of Sukarno, and the events leading to and after the bloody suppression of the communist uprising in 1965. The impetus for reforms, however, was provided by the two shocks of steep drops in oil prices, one in 1983 and the other during 1985-86. The New Order regime of president Suharto allowed its technocrat advisors to reverse the import substitution policies that had been followed up to then and to replace them with export-led growth policies. Reduction in tariffs and the eventual removal of non-tariff barriers exposed the domestic industry to international competition (the "efficiency effect") but also allowed it to make use of the relatively cheaper and more freely available imported inputs in order to find its own area of comparative advantage (the "price and quantity of inputs" effects). The outcome of these policies, coupled with a retrenchment of the public sector and the deregulation of the financial markets, was to lead to a rapid reallocation of resources towards areas favoured by the private sector and directed by market forces.

Patterns of Resource Allocation

As Chart 1 shows the real price of oil declined steeply from the middle of 1981 until the end of 1983. Given that in Indonesia during 1981-82 oil earnings accounted for 82% of export receipts and more than 70% of government revenues, the GDP growth rate turned negative in 1982 and only partially recovered its pre oil shock growth rates in 1984 (Chart 2). Since then GDP growth has been on a generally upward trend fuelled primarily by the growth of exports.

TABLE 1

CHRONOLOGY OF MAIN ECONOMIC REFORMS IN INDONESIA

TRADE

1985

Tariff reductions (down to an average of 60%) and simplification of the tariff system
Imposition of countervailing non-tariff barriers (NTB)

1986

Producer-exporters and indirect exporters were given refunds or exemption facilities on import duties.

1987

NTB were lifted or modified in favour of further tariff adjustments.

Export licenses abolished.

1989

Reduction in the number of specific duties

Reorganisation and tariff classification

1990

Further tariff reductions (on average less than 40%)

BANKING

1983

Deregulation of interest rates payable on deposits by state banks

Credit ceilings removed

Central bank introduces open market operations using state or private sector instruments.

1988

Freedom to establish new banks including joint ventures by foreign and domestic banks.

Restrictions removed on expansion of bank branches

Reduction in reserve requirements

Improvements on the efficiency of open market operations

Regulatory constraints on "single client" loan exposure and limits on net open forex positions. All banks can accept saving deposits and deposits from state bodies.

1990

Use of liquidity credits reduced and restricted.

FINANCE AND INVESTMENT

1986

Extensive deregulation of areas open to private and foreign investment.

1987

Deregulation of the securities market including equity participation by foreigners.

Liberalisation of rules concerning joint ventures

1988

Establishment of securities companies

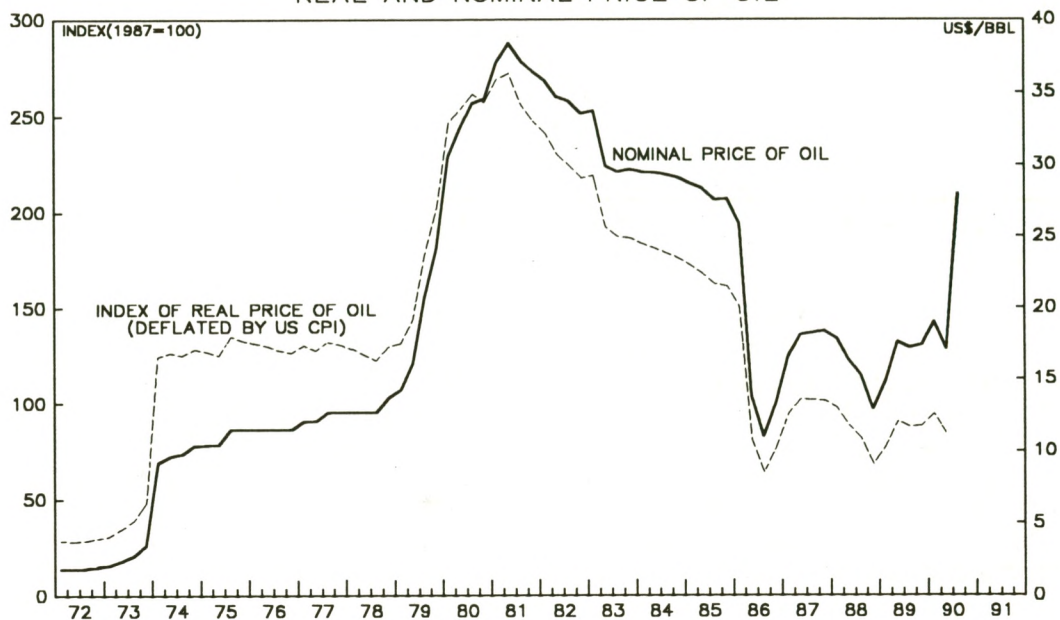
Equal tax treatment of interest and dividend receipts

Permission to set up private exchanges

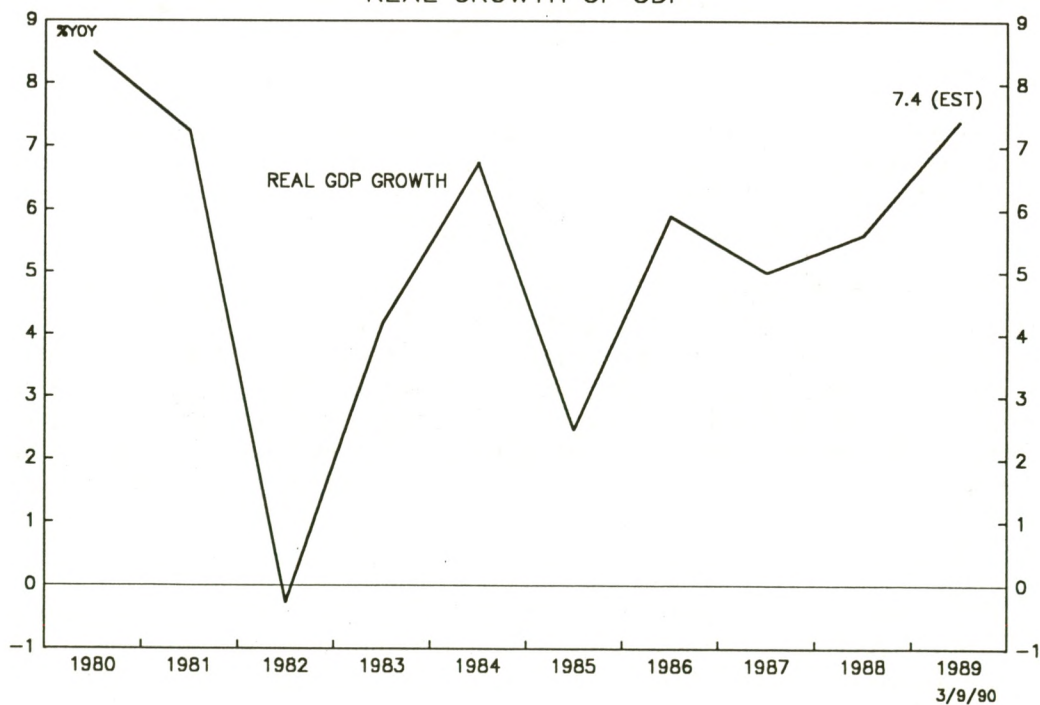
1989

Further simplification of rules governing areas open to private domestic and foreign investment.

INDONESIA: CHART 1
REAL AND NOMINAL PRICE OF OIL



INDONESIA: CHART 2
REAL GROWTH OF GDP



The peaking of the US dollar in March 1985 was followed by its steep decline against most currencies until 1988. As only 30% of Indonesia's foreign public debt at that time was denominated in US dollars, this decline added to the service burden in the succeeding periods. Chart 3 shows that Indonesia has maintained a persistent surplus in its trade account. Interest payments, however, on its external debt absorbed more than 80% of the trade surplus during 1985-89. The debt service ratio (debt service payments divided by gross exports) has averaged about 33% over the same period but has shown a rising trend. Net official reserves are still adequate covering, on average (1985-89), 4.5 months of imports or about 2.2 times the annual current account deficit.

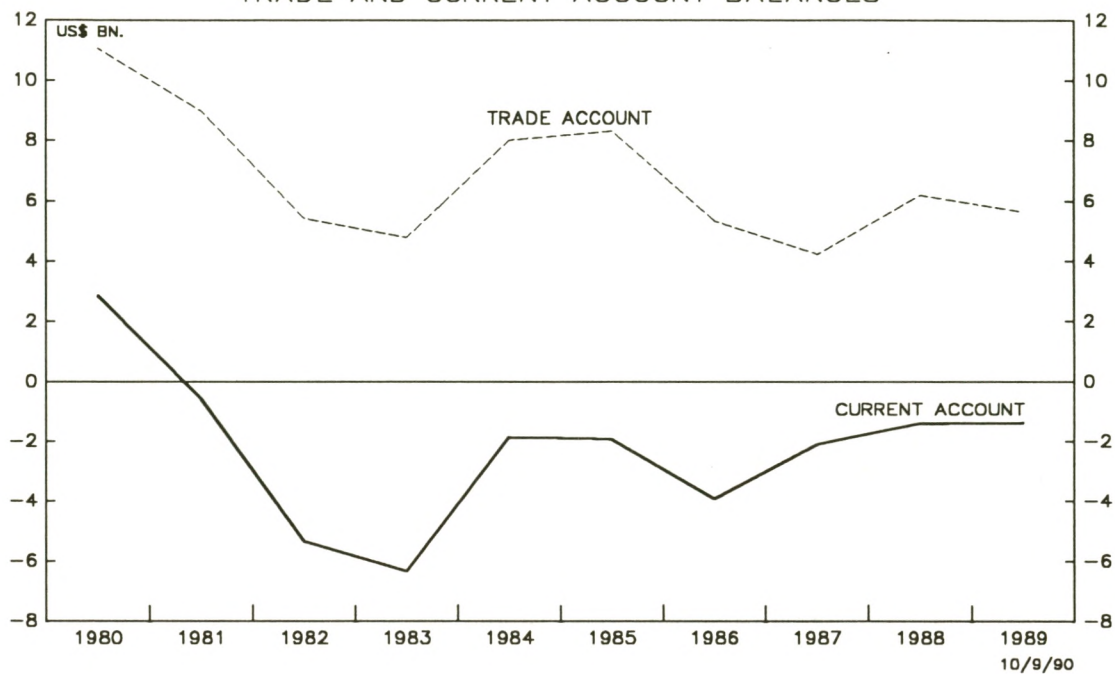
Indonesia's main success, however, has been its rapid move away from being primarily an oil exporter to one with a wider and more diversified product basis. The non-oil manufacturing sector, which accounted for 11.5% of GDP in 1985, had risen to 15.5% in 1989. Its growth is evident in the structure of exports, with oil assuming a diminishing role after 1986 when the effects of the tariff reductions and import liberalisation started having their impact (Chart 4). The major industrial non-oil exports include plywood and other wood products, textiles and garments, plastics, cement, ceramics, pharmaceuticals and, increasingly, consumer products including electrical goods.

Given the rapid rise of the manufacturing sector in Indonesia's economy the familiar question of the development of backward and forward linkages has to be addressed. The development of industrial sectors which generate very little value added products and which do not stimulate further development by creating input demand from domestic sources may result in problems in the future, and in particular in the absorption of unemployed or underemployed urban dwellers. Furthermore the importance of the domestic market cannot be underestimated -- 178 million people, but still with low per capita income (US\$504.0 in 1988 compared to Philippines' US\$667, Thailand's US\$1,038 and Malaysia's US\$1875). There is however some evidence that industrial sectors unrelated to crop or forestry products are beginning to grow aided in particular by foreign investment. For example, during 1985-89 82% on average of approved foreign investment projects and 60% of approved domestic projects were directed to manufacturing, in both cases the chemicals sector attracting most of the funds. Japan is by far the most important foreign investor in Indonesia accounting for 38% of all approved investment projects over 1967-88, as well as being its main import-export partner (see AMM Vol. 13 No. 6).

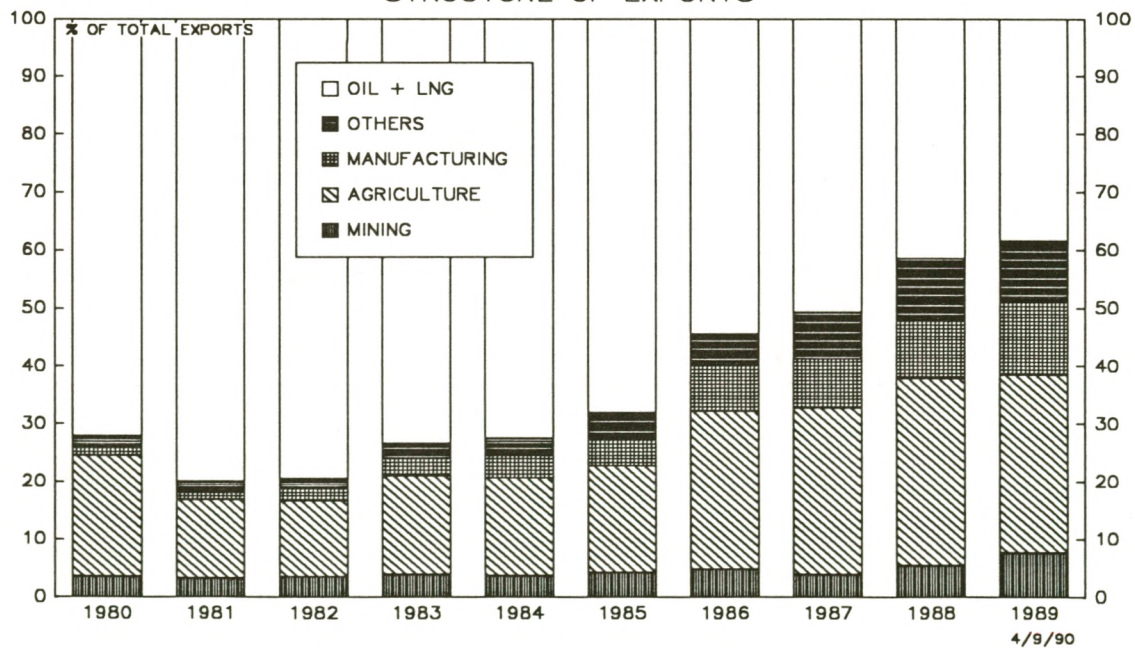
The growth of exports and imports (Chart 5) was affected by the devaluation of the Rupiah by 28% in March 1983 and again by 31% in September 1986. The first devaluation undoubtedly helped exports to recover whilst keeping import growth at low levels at a time of international contraction (1982-83). Similarly the second devaluation in 1986 helped to lift exports from negative growth during 1986 caused primarily by falling oil prices. The sustained export growth between the end of 1988 to the end 1989 was primarily due to the restructuring of the product content and the liberalisation of the economy which allowed producers to find their competitive niches in the international market.

Fixed investment expenditures averaged 23% of real GDP over a 12 year period (1978-1989). As Chart 6 indicates investment expenditures have made a decreasing contribution to Indonesia's GDP growth since 1985 although this trend reversed in 1989. One reason for this decline was the very rapid expansion of the export sector

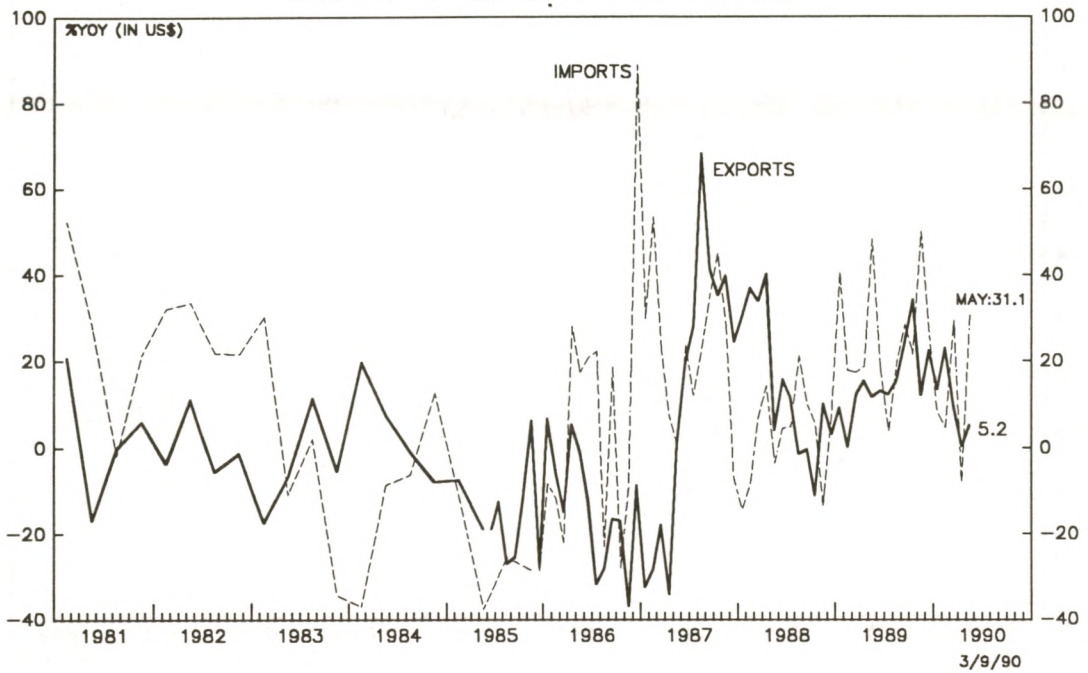
INDONESIA: CHART 3
TRADE AND CURRENT ACCOUNT BALANCES



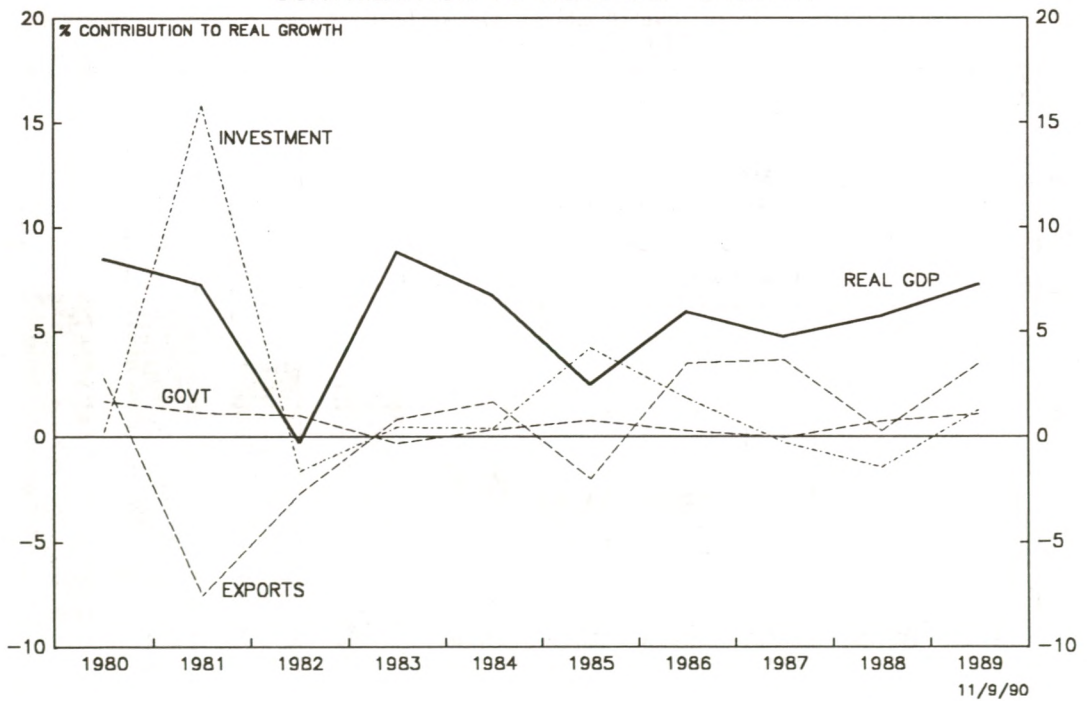
INDONESIA: CHART 4
STRUCTURE OF EXPORTS



INDONESIA: CHART 5
GROWTH OF EXPORTS AND IMPORTS



INDONESIA: CHART 6
CONTRIBUTION TO REAL GDP GROWTH



particularly after the 1986 devaluation. It is likely that in order to sustain GDP growth rates in excess of the 6.5% achieved during 1988-90 the share of investment in the GDP will have to continue to increase. The incremental capital output ratio (i.e. the amount of extra capital necessary to produce one more unit of real output) in Indonesia rose from an average of 2.8 in 1973-81 to 7.8 in 1982-85 but fell again to 4.4 during 1987-89, a sign of increasing efficiency. This is an encouraging development which is related to the reforms and liberalisation process in the economy. There are, however, two countervailing factors which need to be taken into account. There is now pressing need for infrastructural investment particularly in the areas of transport, power generation and telecommunications, in the last of these particularly so in Jakarta whose telephone system has achieved a degree of notoriety and could seriously inhibit the development of the financial sector. Similarly there are still serious gaps in the areas of health care and education, particularly further education. The returns to these types of investment are slow to materialise either because of the long gestation period necessary for large scale projects such as transport and port development or because increases in productivity, in the case of education, make their impact felt as successive cohorts in the labour force undergo training or raise their educational standards. The mobilisation of resources necessary to undertake this additional investment will involve either a widening of the current account deficit as additional capital flows in from overseas or an increase in the ratio of savings to GDP. Financial reforms and innovations could well be an important contributory factor to the latter alternative.

Central government expenditures as a percentage of nominal GDP during the 1980s have declined from a high of 22.4% in 1982/83 to 18.7% in 1989/90. The overall retrenchment of the public sector had two separate aspects. The central government is legally restricted in terms of its ability to borrow domestically in order to finance budget deficits. By 1981/82 revenues from oil sources (taxes on oil companies etc.) stood in excess of 70% of all sources of income. With the continuous weakening of the oil price since the middle of 1981, the authorities were faced with the possibility of either deficit budgets, which were potentially illegal, or expenditure cut-backs. The reaction of the authorities was twofold: a restructure of the tax system away from oil-related revenue sources, and overall cutbacks in expenditures particularly after the steep fall in the price of oil during 1986. A new income and corporation tax law was introduced in 1984, VAT replaced a sales tax in 1985, and new property and stamp duty taxes were introduced in 1986. The outcome was that by fiscal 1989/90 oil related sources of revenue had declined to 39% of total.

Despite some creative accounting which results every year in balanced budgets (primarily through the expedient of classifying sources of financing the deficit as revenues) the overall budget deficit is a small percentage of nominal GDP: 2.8% in fiscal 1985/86, 4.5% in 1986/87, 1.9% in 1987/8 and 3.3% 1988/89. The deficit is financed almost exclusively by foreign loans or aid funds but given its small size in relation to GDP it has a very minor monetary impact.

Following the oil revenue crisis of 1986 the government reduced the rate of the expansion of its expenditures, particularly those on investment projects, and introduced from 1985 to 1988 a wage and salaries freeze for government employees. Overall fiscal policy in Indonesia as part of the reform and liberalisation policies has been quite successful. It has managed to contain the role and size of the public sector, the budget deficit remains a small percentage of the GDP and sources of revenue have been rapidly diversified.

Monetary Developments

Table 2 outlines the banking system of Indonesia. The dominance of the State Banks must be appraised against their decreasing share of total deposits relative to the private national banks. In 1986 State Banks had 66% of all deposits and private national banks 25%. By 1989 their respective shares were 56% and 37%.

Of the deregulation measures outlined in Table 1 the one which had undoubtedly the greatest impact was the package of measures introduced in October 1988 which permitted freer entrance into the banking system, reduced liquidity reserve requirements from 15% to 2% and allowed easier access to the banking market to foreign banks. The potentially inflationary impact of the reduction in reserve requirements was modified by the banks being asked to purchase the so-called SBI, certificates issued by Bank Indonesia, the central bank, in parcels of different maturities. Most of these certificates were redeemed by mid 1989 reinjecting considerable liquidity into the system.

The results of these reforms were predictable with an explosive growth in money stock during 1989 and 1990 (Chart 7). The mechanics of the expansion of money stock in general, and in the context of Indonesia in particular, are analysed separately in a primer which appears in a boxed appendix to this article.

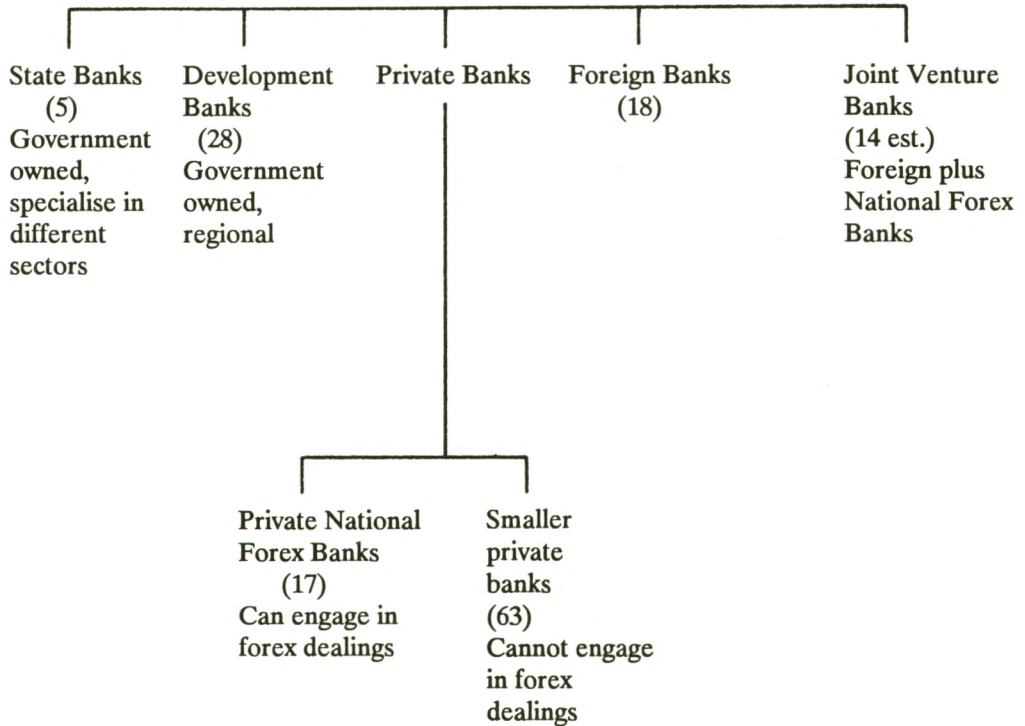
Banks in Indonesia expanded their lending activities whilst simultaneously competing for the expanding deposit market base. The rapid expansion of branches made banks and their services available to an increasing proportion of a predominantly rural population. As Charts 8 and 9 illustrate, since 1988 there has been a significant increase in the longer term maturities of time deposits both in terms of absolute levels and rates of growth. Time deposits rose from about 26% of total deposits in 1980 to 64% at the start of 1990. This is a significant development as it allows the banks to extend longer term loans against a deposit base of lengthening maturity. There are also further consequences in terms of the overall portfolio structure and asset distribution of Indonesian investors which will be examined presently.

As Chart 10 shows bank reserves grew rapidly from the end of 1989 onwards. The decline in the growth of reserves during November 1988-89 was possibly due to the adjustments undertaken by the simultaneous decrease in reserve requirements and the sales of SBI to banks by Bank Indonesia. As previously indicated the majority of these certificates had been redeemed by the middle of 1989. Since the middle of 1988 foreign assets have made in general a negative contribution to the growth of reserves. The net outflow of foreign exchange reserves took an altogether different dimension in June 1990 when it forced the authorities to reappraise radically the policies they had pursued so far.

Bank Indonesia exercises its control over the credit, money and forex markets by an increasingly sophisticated array of instruments and policies which are outlined in Table 3. Since 1984 the emphasis has shifted to open market operations with the creation of money market instruments. The importance of market forces in shaping

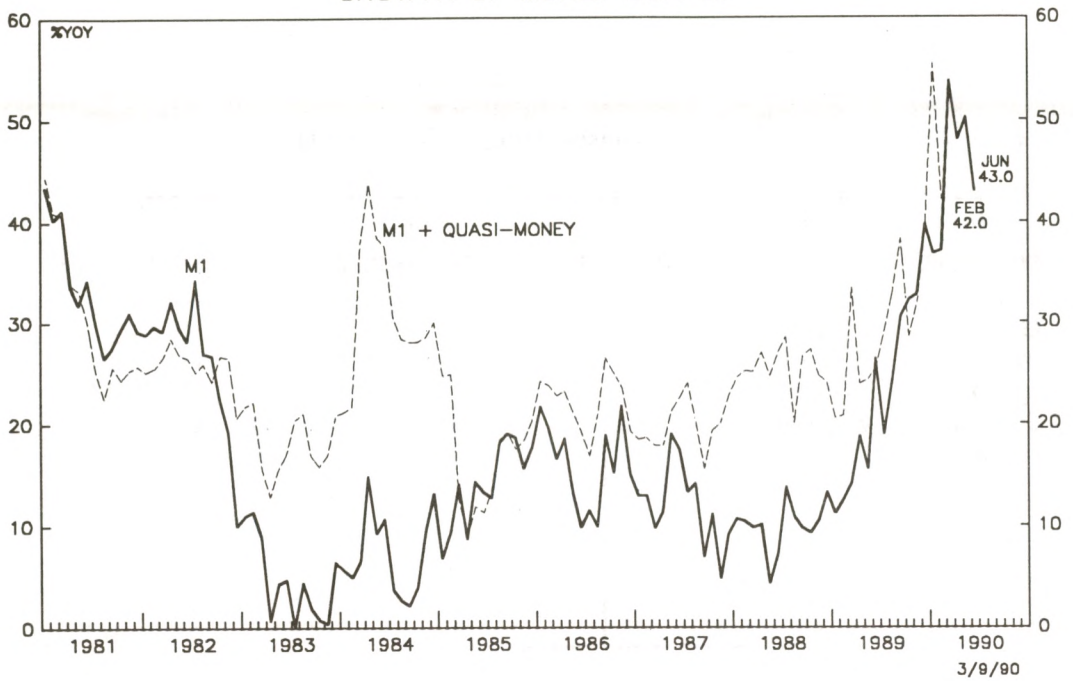
TABLE 2

Banking Structure in Indonesia

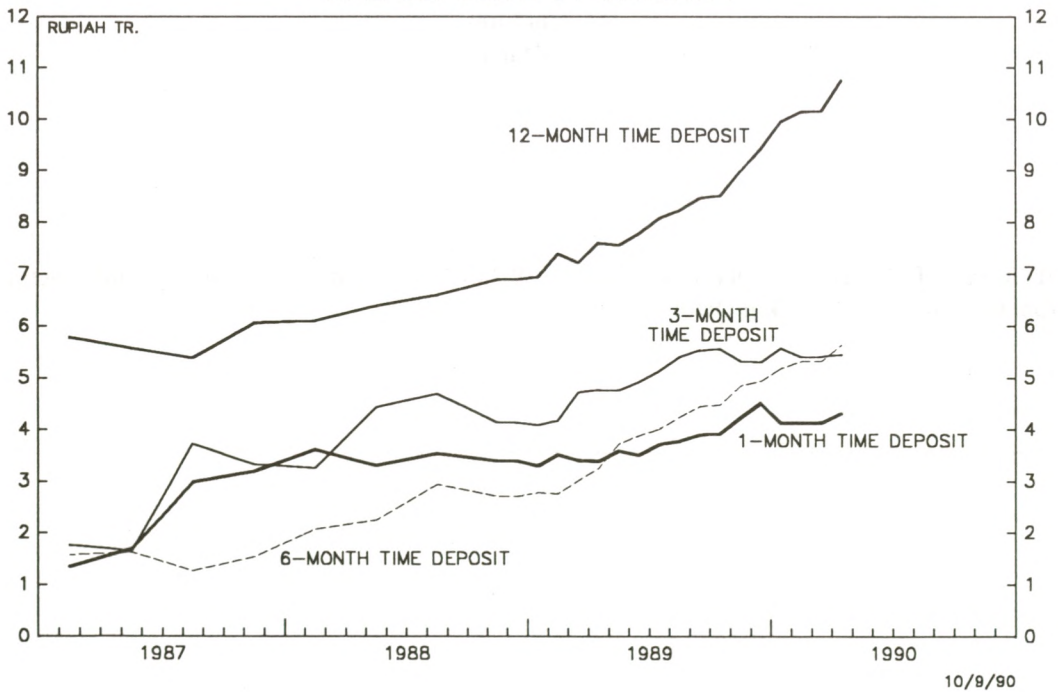


Numbers of Banks (in brackets) as per Sept. 1989-July 1990. Branches of existing banks increased from 6,085 in 1988 to 7794 in October 1989.

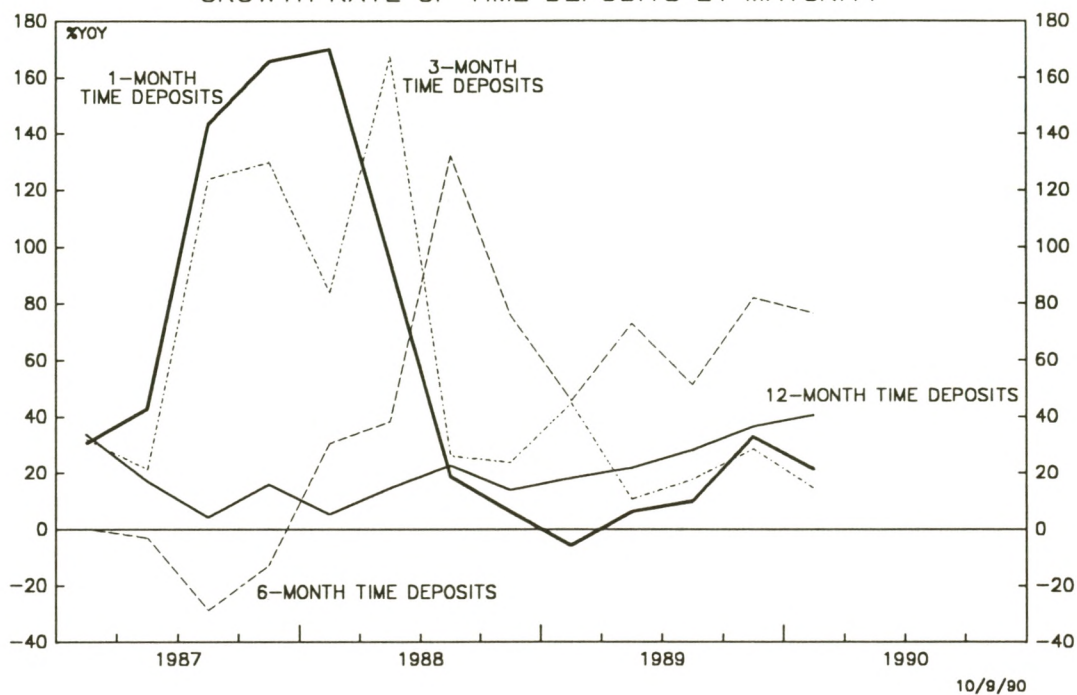
INDONESIA: CHART 7
GROWTH OF MONEY SUPPLY



INDONESIA: CHART 8
TIME DEPOSITS BY MATURITY



INDONESIA: CHART 9
GROWTH RATE OF TIME DEPOSITS BY MATURITY



INDONESIA: CHART 10
GROWTH OF RESERVE MONEY

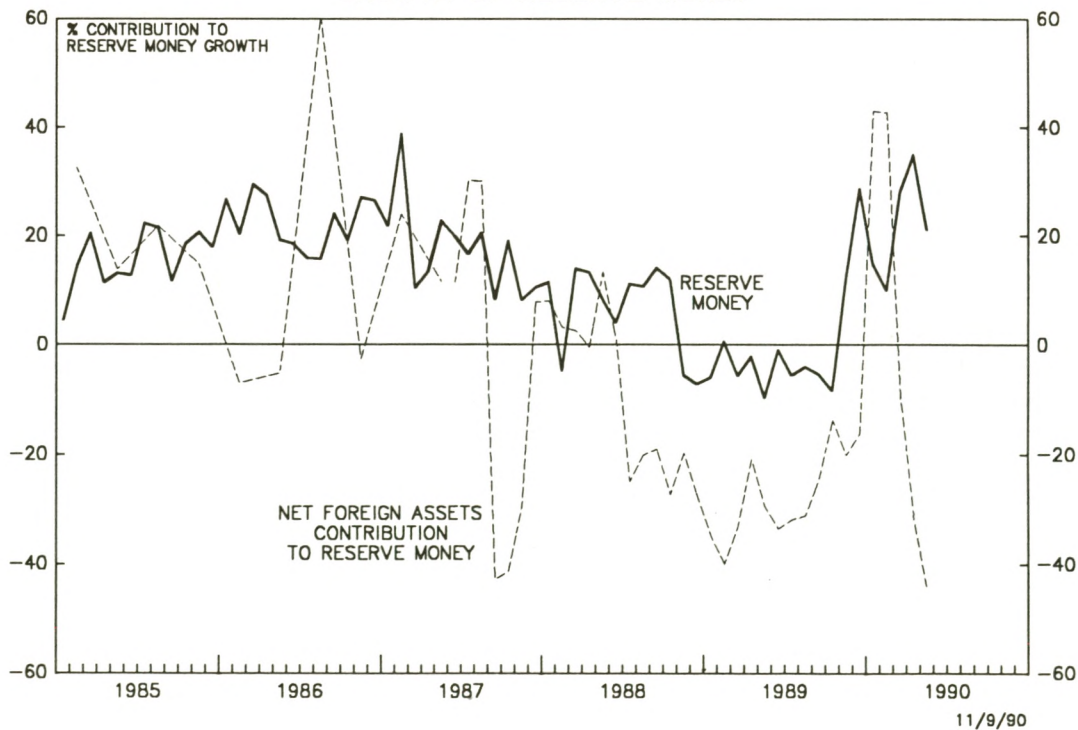
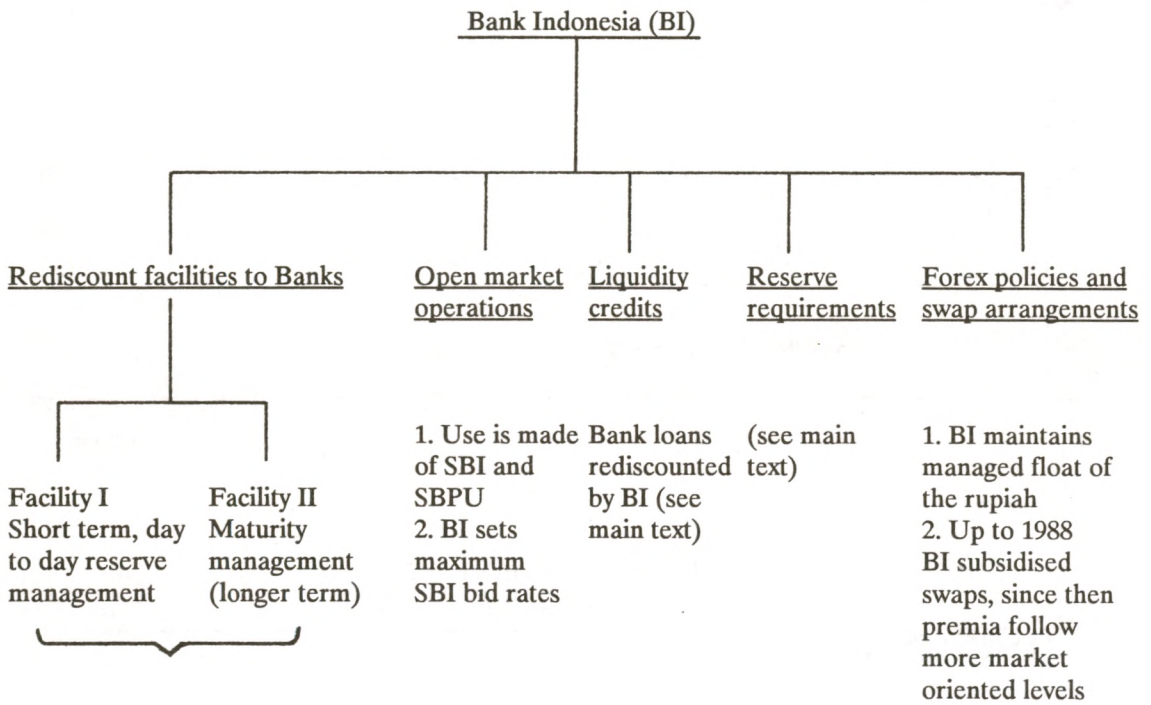


TABLE 3

Monetary policy instruments and techniques in Indonesia



Use are made of:
(a) SBI (see main text)
(b) SBPU: money market instruments consisting of promisory notes of bank customers, of banks, NBFIs and trade bills

monetary policy has meant, however, that liquidity credits, a loan rediscounting facility of Bank Indonesia had to be restricted and progressively phased out. Liquidity credits involved the central bank rediscounting at heavily subsidised rates specific proportions of private bank loans to specific sectors, such as small businesses, exporters etc. These credits originated as a mechanism for transferring oil windfall gains during the mid 1970s to the private sector. Most of the loans covered by these credits were also eligible for insurance cover from a state agency also at subsidised rates. As Chart 11 shows for most of the 1980s, liquidity credits accounted for more than 30% of the all rupiah loans extended by the banking system.

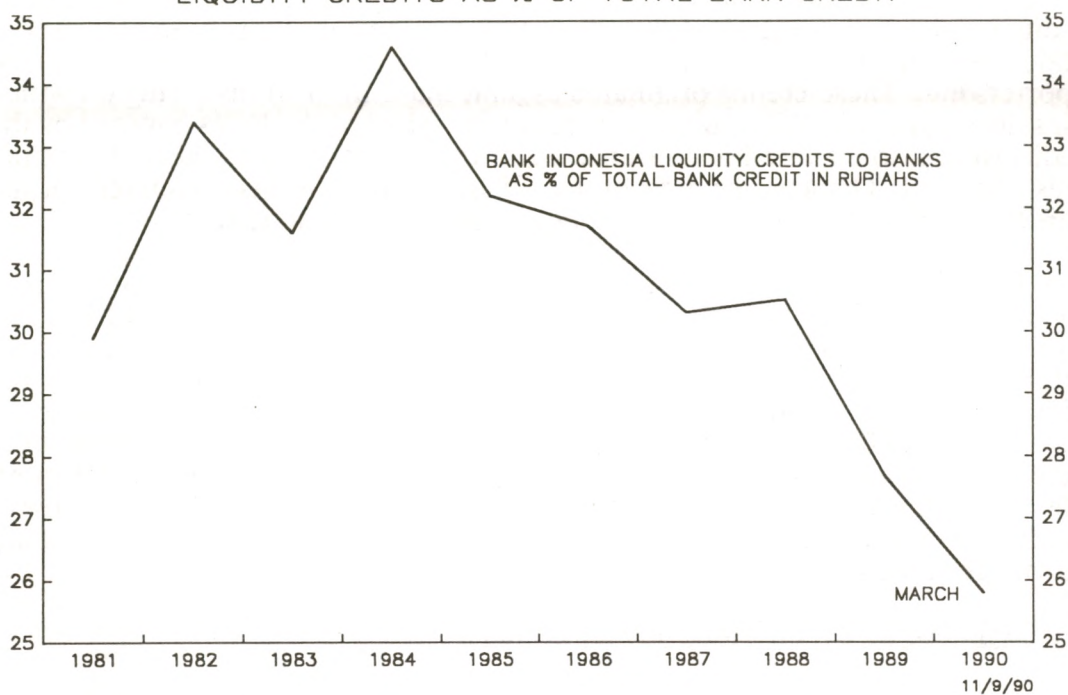
Liquidity credits were open to widespread abuse because their insurance eligibility absolved banks from undertaking credit quality control. As Bank Indonesia did not clearly define refinancing limits, use of these credits provided the banking system with a ready supply of reserves and hence made monetary control all the more difficult. Furthermore the availability of subsidised credits to specific sectors caused misallocation of financial resources. As Table 1 indicates, in January 1990 the uses of these credits were redefined and limited, and even more importantly, the interest rates charged were brought closer in line with market rates. As Chart 11 shows the relative importance of these credits had been declining since 1988 when the banking reforms resulted in a rapid rise in bank lending in general.

The Exchange Rate and Portfolio Adjustments

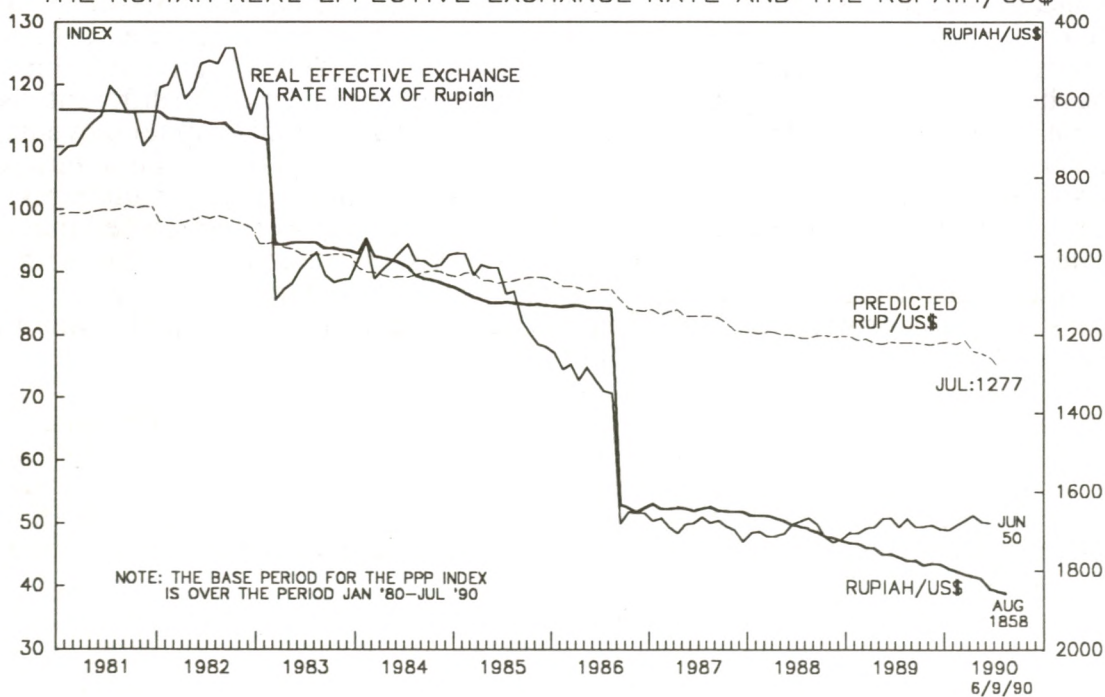
The explosive growth of the money stock during 1989-90 has now raised the spectre of mounting inflationary pressures in an economy which is still expanding rapidly. Given that the second leg of the successful launch of Indonesia into an export-led growth had been the two devaluations of the rupiah (1983, 1986), the other leg being the reduction in tariffs, the authorities have been extremely sensitive to any pressures which could jeopardise the competitive edge achieved. As Chart 12 indicates although the relative competitiveness of the rupiah has remained unchanged since 1986 (the real effective exchange rate), the PPP value signifies a heavily undervalued currency although becoming less so during 1990. Given that Indonesia has had no capital or foreign exchange controls, widening interest rate differentials or signs of weakness in the forex market had led in the past to rapid capital movements including domestic capital flights. Chart 13 indicates that when the rupiah came under pressure in mid 1987 the authorities engineered a sharp rise in interbank rates. In early 1989 interest rates were again eased as the authorities were concerned that real rates were becoming too high. This was an unwise move as it coincided with the acceleration of the credit expansion by the banking system. The sharply rising consumer prices since May 1990 (Chart 14) as well as some evidence of a mounting flight from rupiah forced the authorities to change course.

The process had already started with the January 1990 measures which had restricted the use of liquidity credits. During the first week in June 1990 Bank Indonesia tightened up on its open market operations forcing interbank rates to record levels (Chart 13). The markets viewed these measures as a clear indication of the concern of the authorities over the inflationary implications of the unhindered growth in the of stock money.

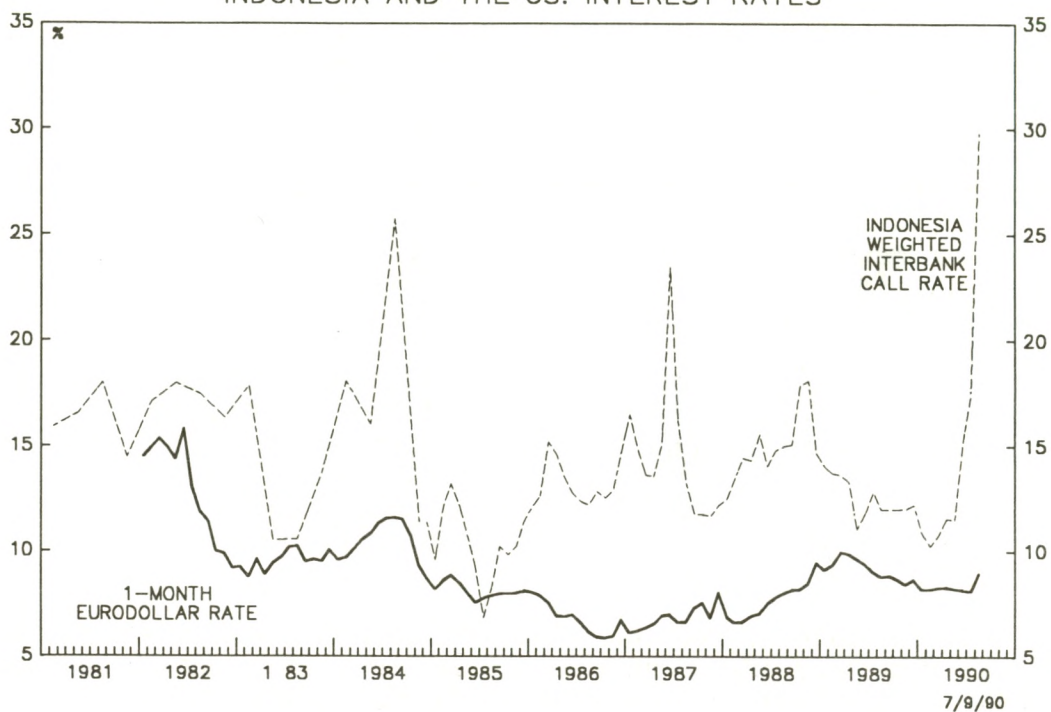
INDONESIA: CHART 11
LIQUIDITY CREDITS AS % OF TOTAL BANK CREDIT



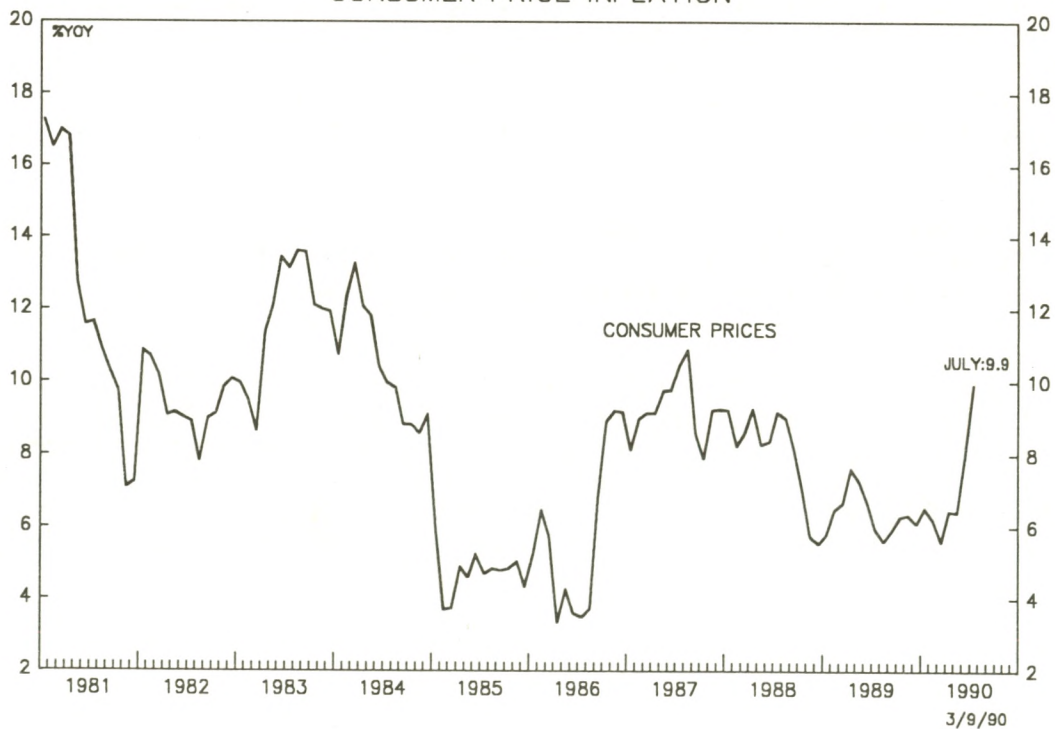
INDONESIA: CHART 12
THE RUPIAH REAL EFFECTIVE EXCHANGE RATE AND THE RUPIAH/US\$



INDONESIA: CHART13
INDONESIA AND THE US: INTEREST RATES



INDONESIA: CHART 14
CONSUMER PRICE INFLATION



This apparent shift both in the direction of official policy and possibly market sentiment is all the more welcome because up to then there had been a rather alarming lack of concern over the potential links between money and inflation. One approach claimed that the relative underdevelopment of the banking and financial system meant that interbank competition and the increase in the number of bank branches made available for the first time a whole range of financial products to a largely rural and unsophisticated clientele. It now followed that the rise in the stock of money would simply be absorbed as people shifted out of other assets to the more convenient and interest-yielding saving and time deposits. The other, and related approach, was more direct in pointing out that the velocity of circulation was falling indicating a greater willingness of the people to accommodate the increases in money stock. The implication of both these approaches was that concerns over inflationary pressures resulting from the acceleration in money stock were overplayed. In simplistic Quantity Theory of money terms this could be right insofar as decreases in velocity V can balance out the increases in M and its potential effect on P (The $MV = PT$ version; for an extensive exposition of this key relationship see AMM Vol. 14 No. 3).

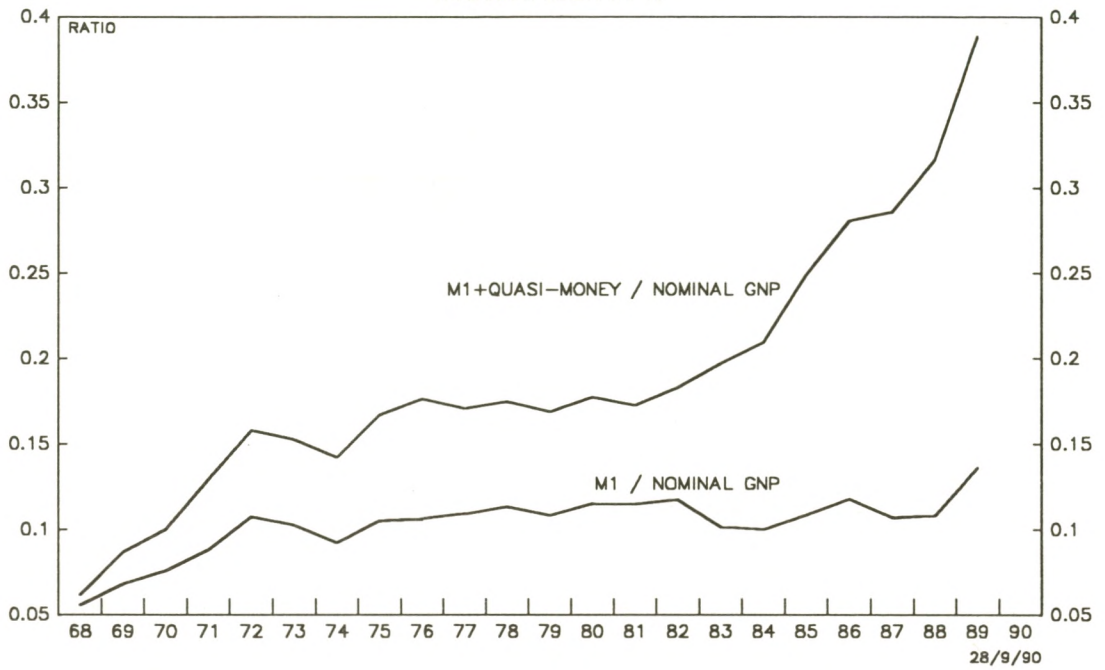
If these claims are not right then Indonesia can expect to experience a surge in the rate of inflation from the middle of 1991 onwards with subsequent pressures on the rate of exchange of the rupiah.

Both versions of the proposition that in Indonesia the increased money stock is being accommodated suffer from a flaw in that they confuse static from dynamic portfolio adjustments and they also overlook the effect of these adjustments on the prices of assets as well as of goods and services. As previously indicated, an appendix to this article outlines in some detail the mechanics of credit expansion and money stock growth and in particular the way in which investors adjust their portfolios. In a nutshell, however, the adjustment process is the following. In the very short run investors cannot simply shift out of assets and move into money without causing the prices of assets to fall since the sum total of deposits (money) will remain unchanged. This is crucial since the whole argument in the case in Indonesia involves an increasing money stock. Over time, and if prices of assets or equivalently their yields change, then people can accommodate more money (deposits) in their wealth but now as part of bigger portfolio.

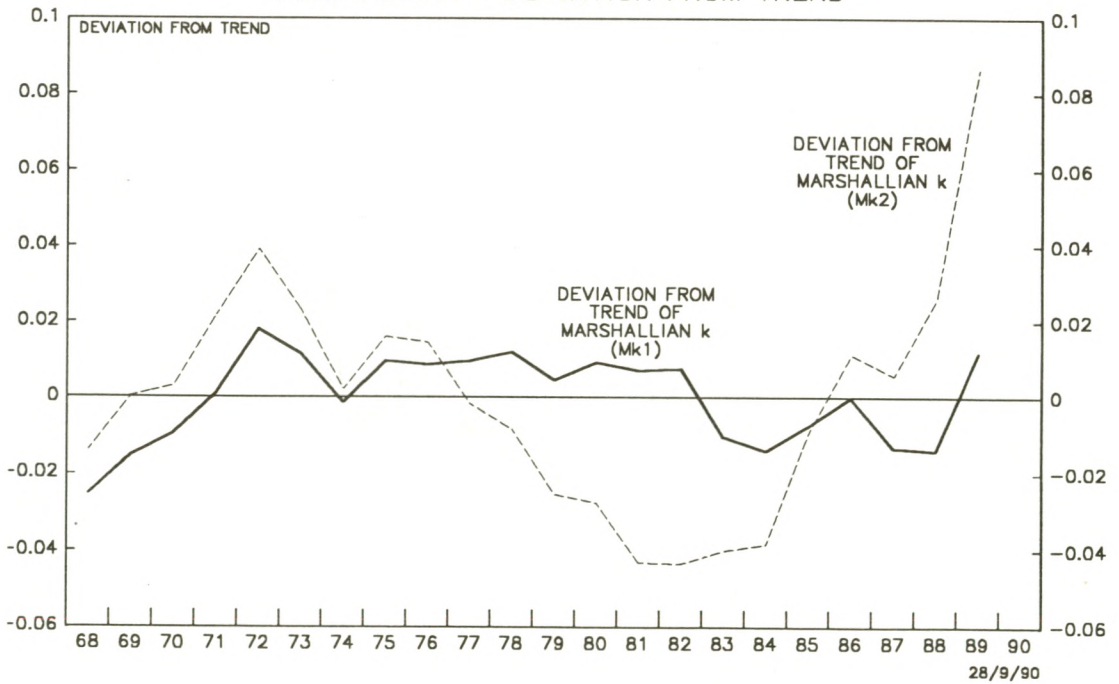
The velocity of circulation, defined as nominal GDP divided by money, is not constant and is expected to fall as national income grows over time. Conversely, the Marshallian k , which is the inverse of velocity, will be expected to rise.

Charts 15 and 16 show estimates of Marshallian k using both narrow and wide definitions of money and the deviation from its trend. The situation for Indonesia is quite clear since k has been deviating rapidly from its trend since 1988, the year that the money stock started to accelerate. This could indicate an overall upward shift in the k function, or equally a downwards shift in velocity, as the economy is adjusting over time to growing financial sophistication and the freer availability of

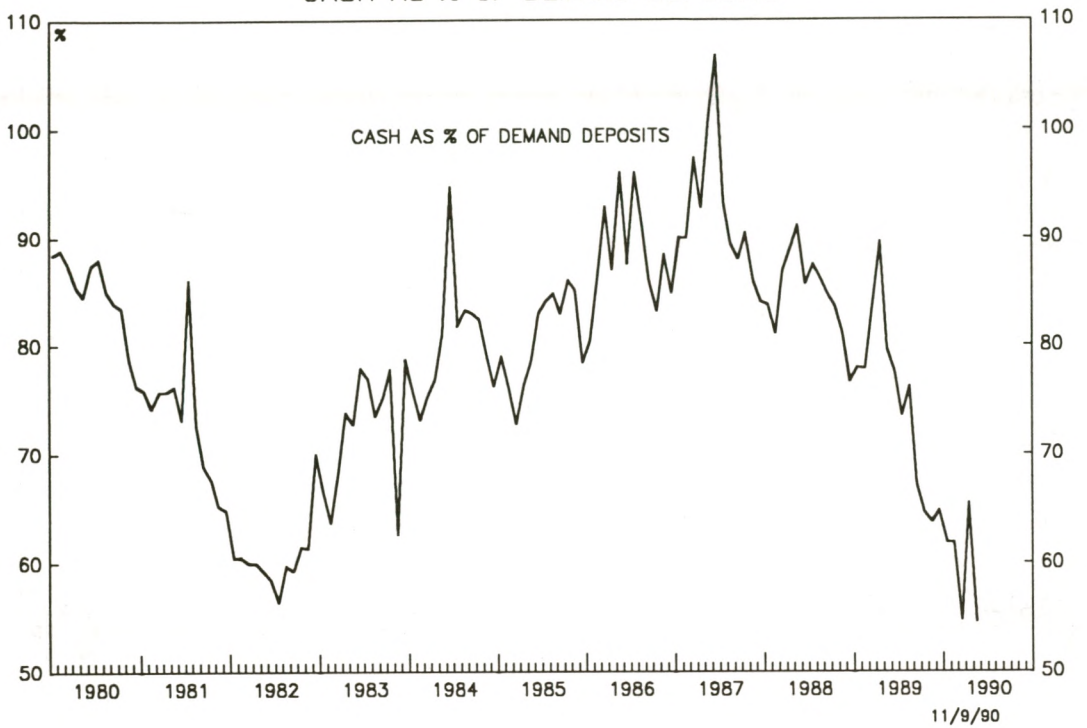
INDONESIA: CHART 15
MARSHALLIAN k



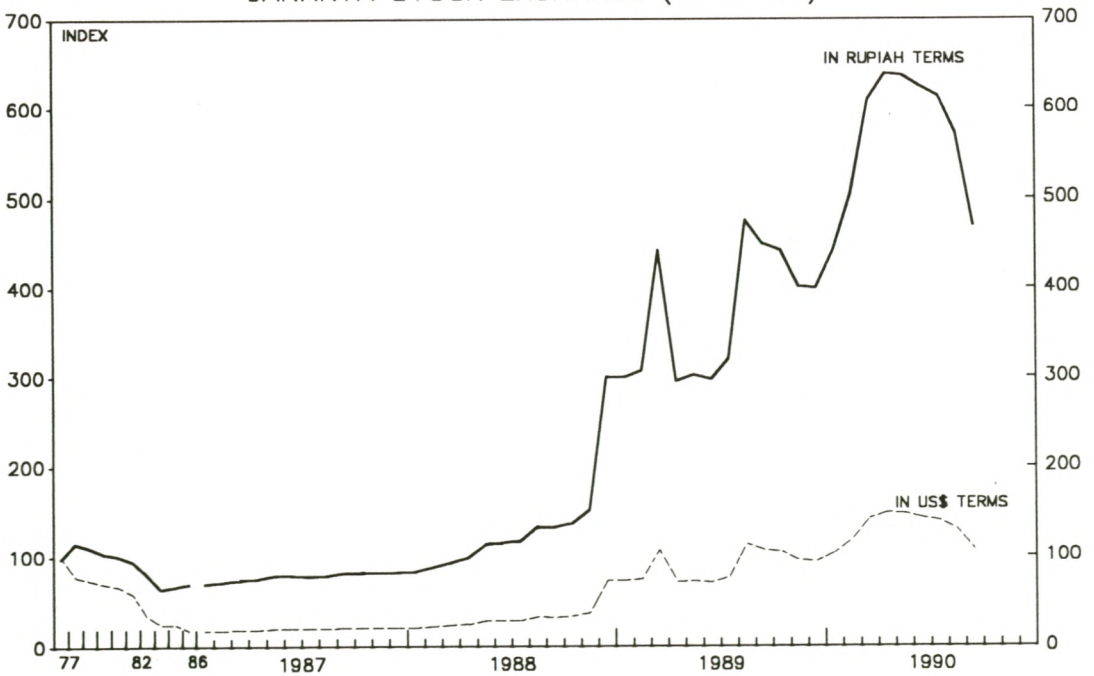
INDONESIA: CHART 16
MARSHALLIAN k DEVIATION FROM TREND



INDONESIA: CHART 17
CASH AS % OF DEMAND DEPOSITS



INDONESIA: CHART 18
JAKARTA STOCK EXCHANGE (1977-90)



which shows a continuing drop in the ratio of cash to demand deposits between the first quarters of 1988-89 the period during which the banking reforms were being implemented. Equally Chart 9 shows that since 1988 time deposits with more than one month maturity exhibited faster growth. This can be construed as an additional indication of financial maturity as depositors made longer term commitments.

Two years' worth of velocity observations (1988-89) are far too short to confirm or deny a permanent shift in velocity caused by financial deregulation. During September 1990 one major bank, Bank Duta, turned out to be nearly insolvent because of forex losses, and other banks were also reputed to be overextended and likely to face increasing losses because of bad loans. The increasing length of the queue of banks applying to raise capital on the Jakarta exchange is also indicative of the potential fund shortages facing these banks. The situation is aggravated by the still rudimentary system of bank supervision and controls in existence. If the banking crisis developed into a confidence crisis the honeymoon with the newly discovered financial assets could well end. The Jakarta stock exchange has performed quite well since 1987 (Chart 18) following the deregulation and liberalisation measures and indeed proved its relative resilience during the Iraq-Kuwait oil crisis in August 1990. Between 1st and 22nd August it declined less than all the other Pacific rim exchanges except for Sydney.

FORECAST: The rapid growth in the money stock during 1989 and the first half of 1990 is explainable by the effects of the deregulation of the banking system and the availability of reserves. At present the decreases in income velocity (increases in the Marshallian k) can only be partially explained by the effects of the deregulation in the financial system and may well prove temporary if confidence breaks. The banking system appears to be still volatile and possibly dangerously overextended. The increase in money stock will result in higher prices towards the middle of 1991. With the authorities pushing interest rates up in an effort to control inflation, and given their adherence to an orderly depreciation of the rupiah, profit margins of exporters are likely to be hit. The rises in interest rates and the uncertainty over the solvency of the banking sector will not create a favourable climate for equities.

Indonesia's experience with market liberalisation and reform has been so far successful with the possible exception of the speed at which the banking sector was allowed to expand. Export diversification, fiscal prudence and retrenchment of the public sector are major pluses. Rising inflation and a poorly supervised banking system are the minuses.

APPENDIX

A simple primer on bank deposits, credit creation and portfolio adjustments

The reforms of Indonesia's banking sector and particularly the liberalisation of interest rates, removal of credit ceilings, reduction in reserve requirements and the raising of barriers to bank entry provided an opportunity to observe a near textbook example of the dynamics of a credit system in the process of expansion. The increased competition amongst the banks for customers, both borrowers and lenders, raised a number of issues which are frequently poorly understood. As these issues are of relevance not only to Indonesia they are outlined and explained in this appendix.

Deposit creation

Deposits are created by banks via lending. The notion that banks "cannot lend what they do not have" is based on the fallacy of composition whereby propositions which are applicable and correct for a single economic unit are not applicable to the economy as a whole. A bank can indeed increase its assets and liabilities simultaneously by crediting the deposit account of a customer with a loan or an overdraft and also creating an asset, the obligation of the customer to repay the sums advanced plus interest. In this sense the bank has lent without first accepting a deposit. The customer will proceed to spend the loan by either withdrawing it in cash or writing cheques against his loan or overdraft account. As it is more likely than not that the recipients of the cash or cheques will not be clients of the bank making the loan, this bank will then find that through the clearing process its assets (cash or deposits with other banks or deposits with the central bank used for clearing purposes) will decrease and so will its liabilities, ie the overdraft or loan deposit facilities of the client. In other words its balance sheet will return to its previous state. It is only in the unlikely case of the recipients of the cheques or cash being customers of that selfsame bank that its balance sheet will remain unchanged. It is important to note, however, that the other banks which are receiving the cash or the clearing cheque will now have their balance sheets expanded. At this stage an element which has not yet been introduced becomes crucial, the liquidity ratio or reserve requirements of banks. The original bank making the loan and creating deposits took the risk that in the clearing process it would end up not having enough liquid assets, such as cash or interbank deposits, to meet its obligations to other banks. Furthermore the expansion of its balance sheet was presumably within the legal or prudential constraints to maintain a certain proportion of its assets in relation to its deposits in some type of reserves. As other banks now receive the proceeds of the loan in the form of cash, interbank deposits or deposits with the central bank, they too will be able to increase their lending, that is create deposits to the extent which is permitted by their reserve positions. The picture here becomes slightly more complicated because the original bank which started the lending-deposit creating process must have had excess reserves otherwise it would have faced a liquidity crisis in expanding its loans. It now follows that the expansion or contraction of reserve assets, given the liquidity or reserve ratios imposed on banks, is an essential element in the process of credit expansion or contraction.

Reserve assets include, by definition, liabilities of the central bank, usually the note issue or deposits of banks with the central bank. It would now follow that the expansion or contraction of the balance sheet of the central bank would signal an expansion or contraction of the monetary base and, by extension, a variation in the ability of the banks to create additional deposits by lending. The emphasis should be

laid on the word "ability" to lend. Banks are not the only holders of reserve assets, for example the public holds cash and may compete with the banks for other reserve assets as well. Equally, availability of reserve assets does not mean that borrowers will be willing and/or able to borrow as much as the banks would be willing to lend at given interest rates. This point will be raised again in the next section.

An important factor contributing to the variation of the size of the balance sheet of the central bank is the net inflow or outflow of foreign exchange. If monetary authorities do not allow a completely free float of their currency, an inflow of, say, US dollars into Indonesia would lead to an expansion of the monetary base as the Bank Indonesia purchased US dollars for rupiahs in order to maintain the exchange rate. Similarly an outflow would lead to a contraction in the monetary base. Hence changes in the current account balance in conjunction with the foreign exchange regime play an important role in the expansion or contraction of the money stock via the deposit-creating lending operations of banks. Central banks can sterilise the impact of changes in the current account balance on the domestic money stock by selling bonds to the public or banks and/or raising reserve requirements during periods of surpluses and doing the reverse during periods of deficits.

In the case of Indonesia a number of events took place which increased the capacity of the banks to expand deposits by lending. First, Bank Indonesia had provided the banking system with a continuous stream of reserves in the forms of liquidity credits (see main text). Second, reserve requirements were reduced in October 1988, although the impact of the reduction was dampened by the banks being asked to increase their holdings of SBI. Third, since 1983 the lifting of credit ceilings, the liberalisation of interest rates, and since 1988, freedom of entry into the banking sector led to an expansion in the number and in the lending activities of banks, and hence of deposits.

Competition for Deposits

Interbank competition and its effect on money stock can be viewed in two different contexts. In the static sense increased competition amongst banks for depositors is a "zero sum game". At any moment in time there is a given amount of deposits. One bank's gain is therefore another's loss, leaving the sum total of deposits, and therefore of money stock, unchanged. In a dynamic sense, as has been explained, deposits can only be expanded by lending. So the rapid increase in money stock after 1988 cannot be attributed to interbank competition for deposits, unless deposits were increasing, and this could only have happened if bank lending was increasing leaving aside any increases in the capital base of these banks. This raises the related, but technically more complex issue, of increases in the amount of deposits held by Indonesians as part of their wealth being caused by interbank competition, keener interest rates paid, increased number of branches, services offered etc. These factors have also been offered as an explanation of the increase in the money stock after 1988.

Starting with the simplest possible case consider an Indonesian peasant farmer deciding to open a deposit account with a newly opened branch of a bank in his village. The bank offers him interest plus gifts for his account which he opens by retrieving his cash savings from underneath the proverbial bed. The bank has actually helped to generate a deposit, although technically one form of loan has been substituted for another. The farmer instead of lending a sum interest-free to the central bank and hence to the government by holding cash now lends it instead to the private bank. As

cash forms a part of the legal reserves of the bank, the bank now has a greater capacity than before to expand deposits by making loans, assuming always that borrowers can be found at existing interest rate levels. This simple act can also be construed as a portfolio shift from a very liquid asset with zero capital risk, to a less liquid but interest yielding asset with a non-zero capital risk, ie the possibility of the bank defaulting on its deposit obligations. There are, however, limits to this deposit creation by portfolio or asset shifts for the very simple reason that these actions also constitute "zero sum games". Suppose, for example, that the farmer sold his land and deposited the proceeds. The buyer of the land has now the farm and the farmer has the seller's bank deposits. Therefore, there has been no change in the stock of money. However, had the buyer obtained the funds via a bank loan, then the stock of money has increased because the banks have lent more.

The whole community cannot simultaneously shift from one class of asset to another without at the same time playing a game of financial musical chairs. The outcome of these movements will be changes in prices and yields which are essential in equilibrating the altered demand and supply situations amongst asset holders. Under these circumstances, in general, the stock of money will remain unchanged.

It now follows that Indonesians could not have moved from other assets to deposits except as a part of a dynamic process. Over time, and as the rewards and benefits of holding financial rather than physical etc. assets changed, then in a dynamic, and only in a dynamic sense could the whole community hold more deposits. This simply means that the ratio of deposits to total wealth, physical and financial, increased over time. The evidence for this happening in Indonesia has been reviewed in the main text.

At this stage it is important, to lay to rest once and for all the endlessly repeated fallacy of "depositors moving their money from banks to shares, to property etc.". At any moment in time sellers of shares, or of any other assets, receive the deposits of buyers, the sum total of deposits, therefore, remaining unchanged. There is, however, a special case to consider involving direct or portfolio investment from overseas. If Indonesians had tried to shift from shares to deposits selling their equity to foreigners, then these foreign buyers would have had to obtain rupiahs first. If they sold US dollars to Indonesians then the money stock would have remained unchanged. All would have had happened in this case would have been an increase in the US dollar deposits held by Indonesians and a decrease in their rupiah accounts which would have now been credited to the rupiah accounts of foreigners. If Bank Indonesia, however, provided the rupiahs, then the money stock would have increased, which is, of course, a different case.

Over time investors can increase or decrease the proportion of their wealth held in bank deposits, equities or any other asset. But, to repeat, increases or decreases in bank deposits is the outcome of bank lending rather than of the willingness of people to "hold more or less deposits". Banks, however, can expand loans only if they have the appropriate reserve assets and borrowers are willing to borrow at the offered interest rates. Equally, investors cannot be forced to hold deposits as part of their portfolios. The relative attractiveness of deposits can be enhanced by interest payments, banking facilities and other financial services. All these processes involve time. If investors wished to move out of deposits they could not all do it at the same time. An attempt to do so would have involved a simultaneous effort by all investors to buy assets resulting in the prices of these assets increasing sufficiently so as to lower

the value of deposit/asset ratio to the desired level of the wealth holders or investors. The amount of bank deposits would not have changed.

Competition for Loans

As has been indicated above deposits are created by the lending activities of banks subject to the constraints imposed by their reserve requirements and the willingness of borrowers to borrow. It is frequently forgotten that excess reserves do not mean instant increases in the money stock via additional loans unless borrowers are assumed to be interest inelastic. In other words the deposit creation activities of banks are also constrained by the interest responsiveness of the demand for loans. The competitive pressures on interest rate margins in Indonesia resulted in poorer quality loans as banks became less choosy about their customers or simply accepted to extend loans to clients willing to pay higher rates precisely because their undertakings or businesses carried a higher risk. Indonesian authorities are now being forced to address the regulatory issues raised by these developments as a number of banks face growing losses caused either by bad loans or reckless expansion.

Conclusions

1. Bank deposits increase or decrease as banks expand or contract their lending activities.
2. Investors cannot instantaneously shift in to or out of bank deposits unless the restructuring of portfolios is carried out over a period of time. At any given moment an attempt to hold less deposits and more of other assets would simply increase the price of other assets or equivalently lower their yields and leave the sum total of deposits unchanged. This would result in a fall in the deposit/assets ratio.
3. Competition amongst banks cannot create deposits as deposits are created over time via lending. Equally competition amongst banks cannot result in a shift towards deposits by investors unless this is a part of dynamic adjustment of portfolios.

S. KOREA

MONETARY INJECTION OF DECEMBER 1989 POSTPONES PROPER ADJUSTMENT

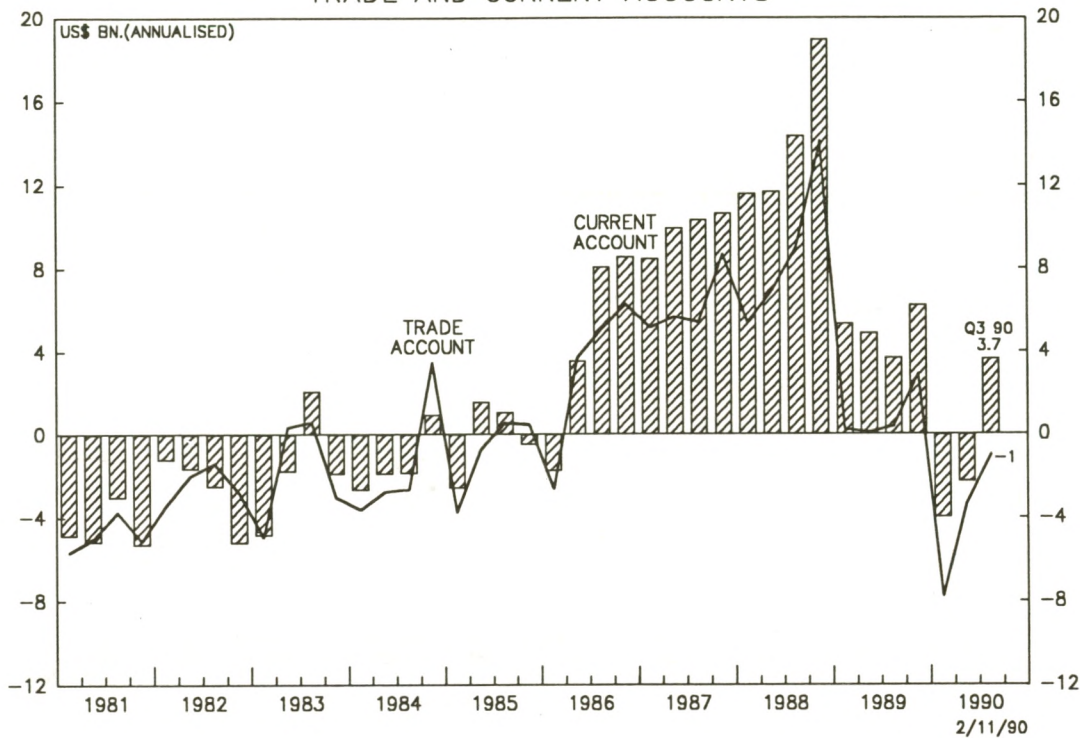
During the first two quarters of 1990 Korea has witnessed a dramatic shift from current account surpluses averaging US\$5 billion per quarter on an annualised basis in each quarter of 1989 to current account deficits of US\$4.0 billion in the first quarter of 1990 and US\$2.3 billion in the second quarter of 1990. The third quarter saw a recovery in the current account to a US\$3.7 billion (annualised) surplus, but the trade account remained in deficit to the tune of US\$1 billion (annualised). The deterioration in current account and trade account performance had already started in 1989 when the current account surpluses had roughly halved (see Chart 1) from their levels in 1988, and the trade surplus had slumped to negligible levels in the first three quarters of 1989.

The shift from trade and current account surpluses to deficits is the result of three sets of factors: (1) the appreciation of the Korean Won between 1986 and 1989 which has slowed export sales abruptly, (2) strong domestic demand which has led to a rapid and continuing growth of imports, and (3) import liberalisation measures such as the abolition of some quotas and the reduction of tariffs.

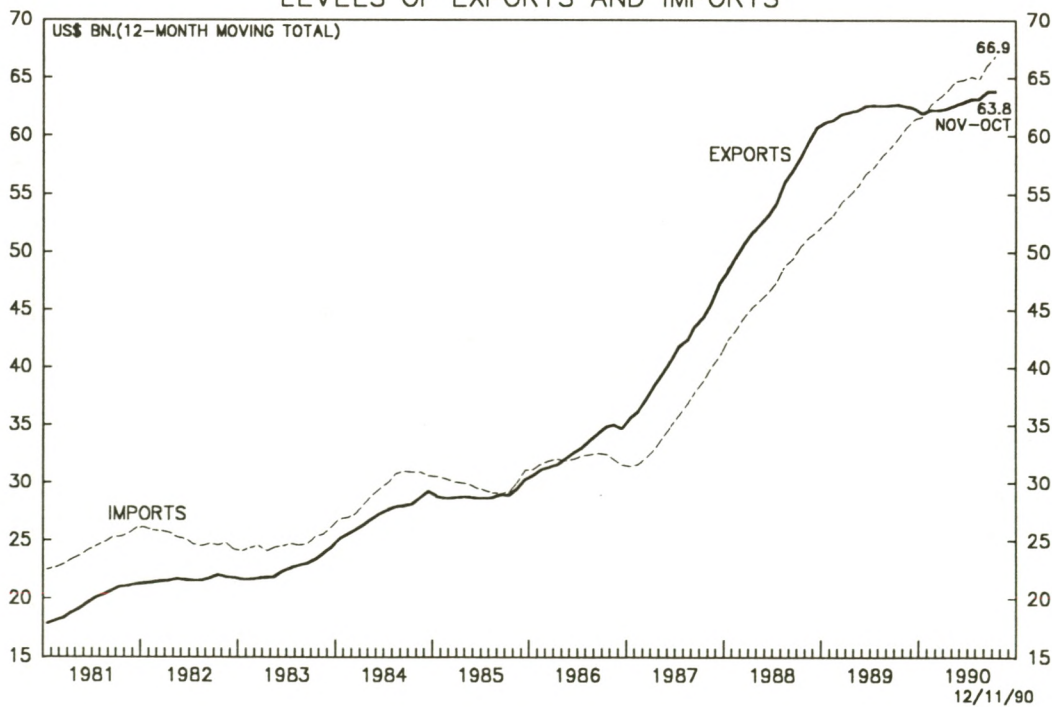
The slowdown of exports associated with the appreciation of the Won and the slowdown of domestic demand in the USA during 1988-89 clearly caused Korea's export growth to flatten. Chart 2 shows a 12-month moving total of Korea's exports measured in US\$. On this basis there was almost no growth in export receipts between the end of 1988 and the middle of 1990. In the meantime, strong domestic demand was fuelling strong growth in residential and non-residential construction and personal consumption spending, leading in turn to strong growth in imports. Thus in Chart 2 imports show an almost uninterrupted upswing from early 1987.

The movements of the Korean Won are shown in Chart 3. From 1981 until September 1985 there was a steady depreciation of the Won against the US\$. On a real effective exchange rate basis (i.e. trade weighted and adjusted for inflation) the Won remained fairly firm until early 1985, but then depreciated sharply in 1985 and into the early months of 1986. This means the currency was probably not a major factor in the determination of export performance between 1981 and 1985, but did become very important after 1985. The great improvement in competitiveness due to the decline of the Won-US dollar rate in 1985-86, and the subsequent decline of the real effective exchange rate clearly played a major role in the build-up of Korea's trade and current account surpluses (Chart 1). The profile of export and import growth is shown in Chart 4. Like other East Asian economies, Korea's initial surge of export growth in 1983-84 was triggered by the strong upturn in the US economy. However, as the US slowed and Korea's real effective exchange rate remained firm, export growth slowed sharply in late 1984 and early 1985. As there was little upturn in US domestic demand the subsequent upturn in Korea's exports -- broadly, late 1985 through mid-1988 -- was largely a result of the improvement in competitiveness due to the depreciation of the real effective exchange rate to mid-1986, though the strength of Japanese domestic demand and the appreciation of the yen also played a part in the 1987-88 export recovery.

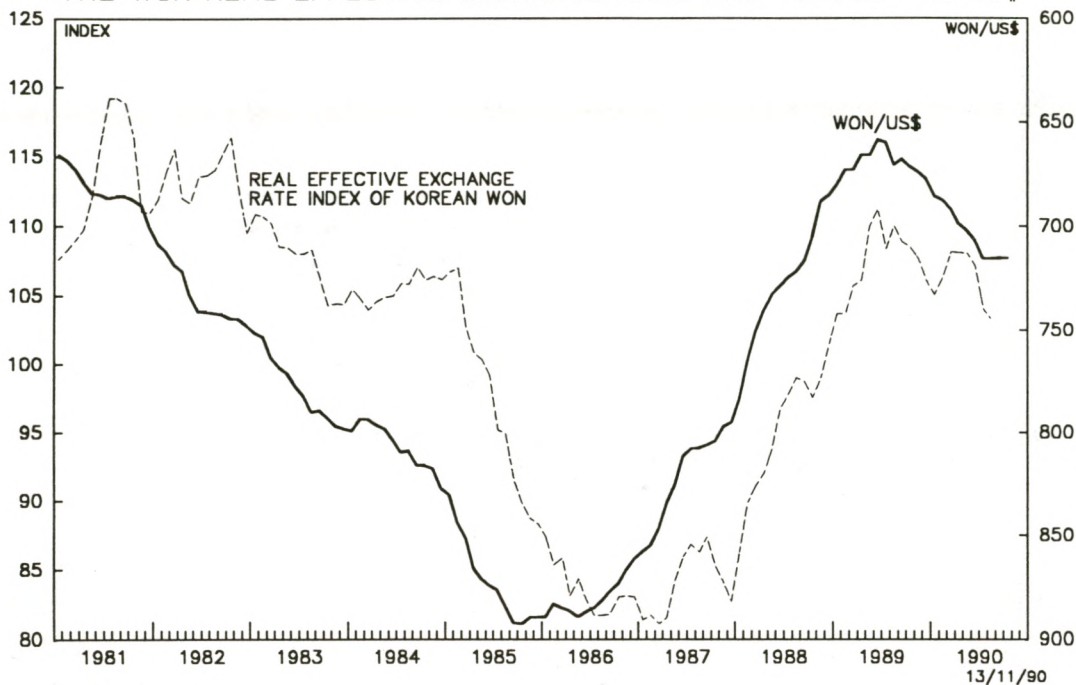
S.KOREA: CHART 1
TRADE AND CURRENT ACCOUNTS



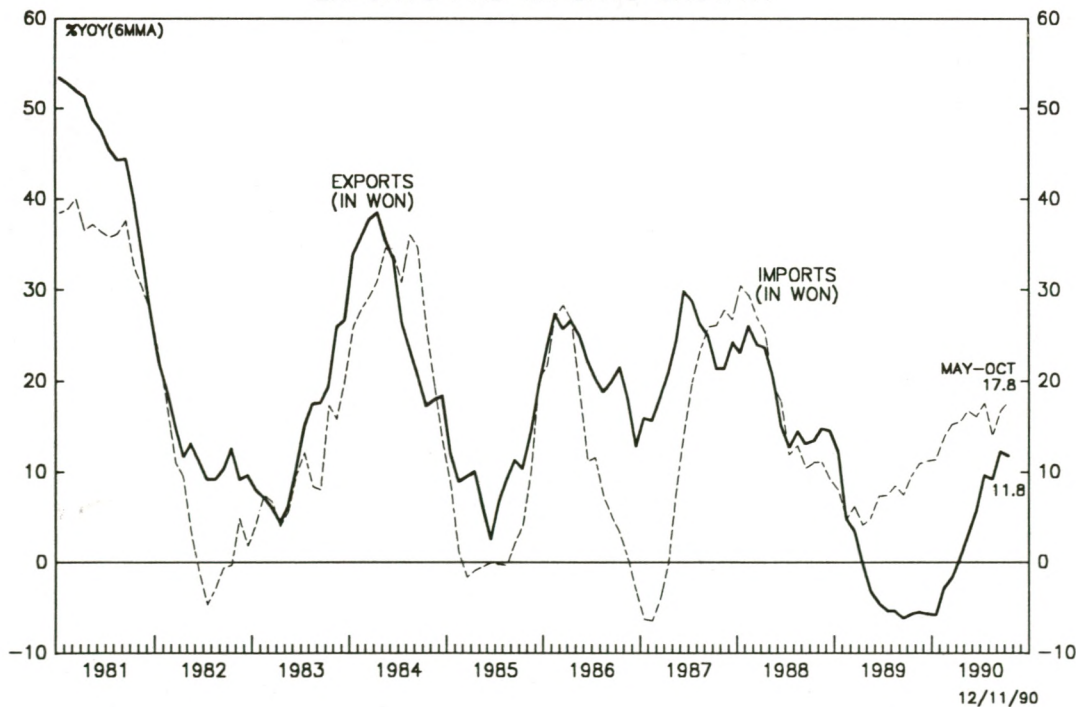
S.KOREA: CHART 2
LEVELS OF EXPORTS AND IMPORTS



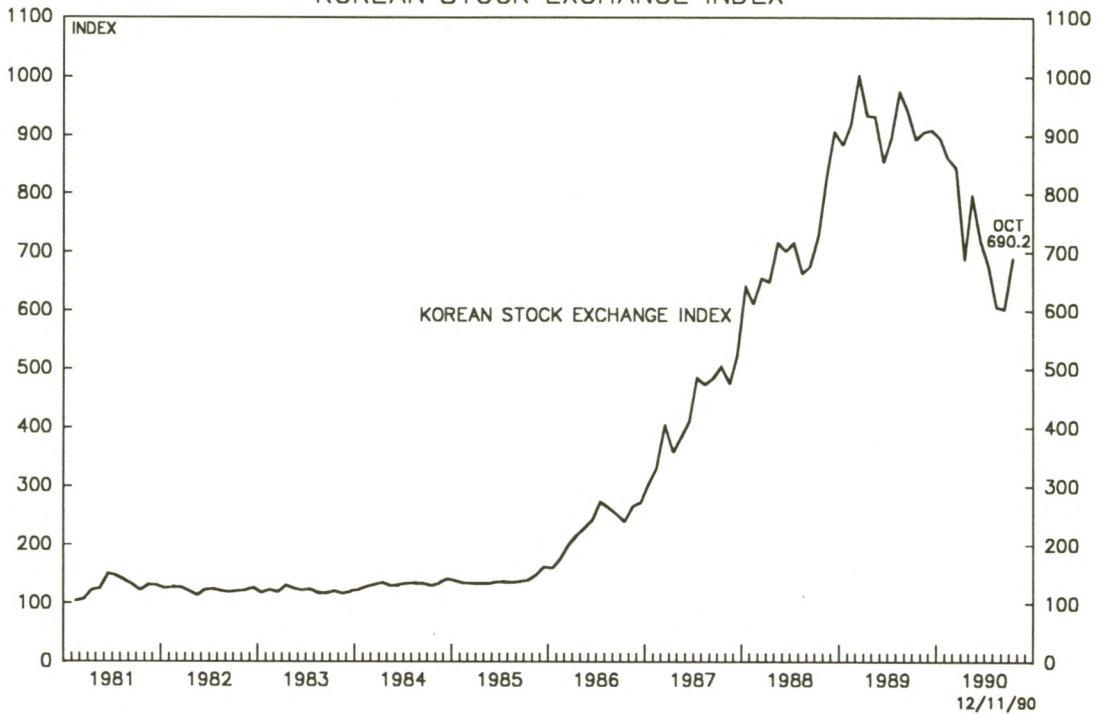
S.KOREA: CHART 3
THE WON REAL EFFECTIVE EXCHANGE RATE AND VERSUS THE US\$



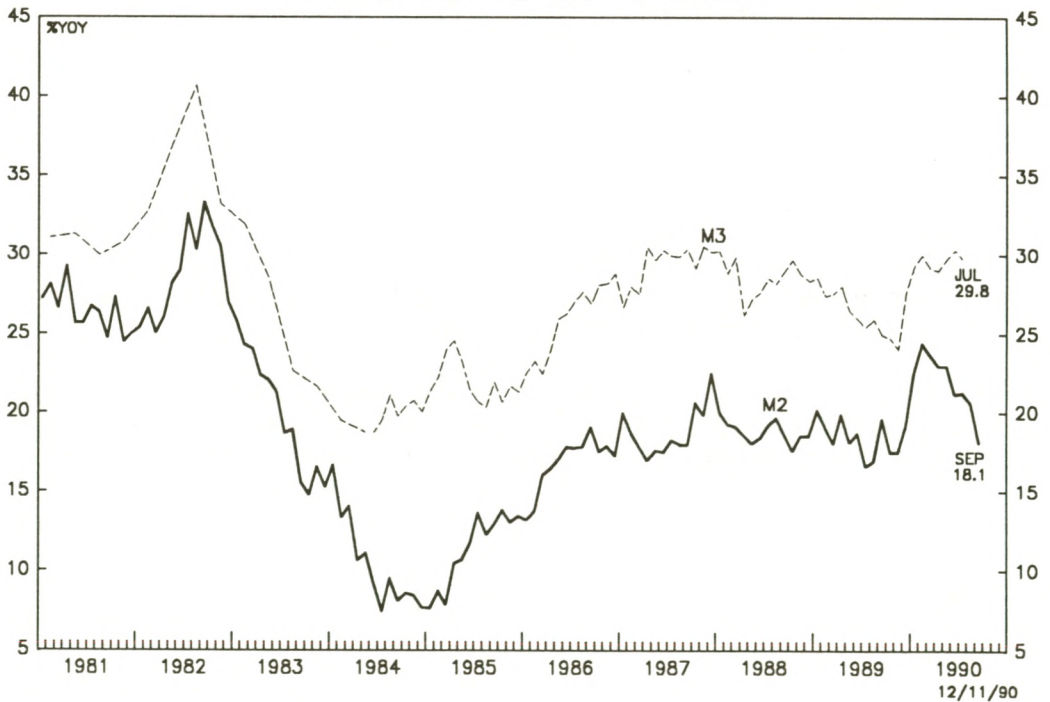
S.KOREA: CHART 4
EXPORTS AND IMPORTS GROWTH



S.KOREA: CHART 5
KOREAN STOCK EXCHANGE INDEX



S.KOREA: CHART 6
MONEY SUPPLY M2 AND M3 GROWTH



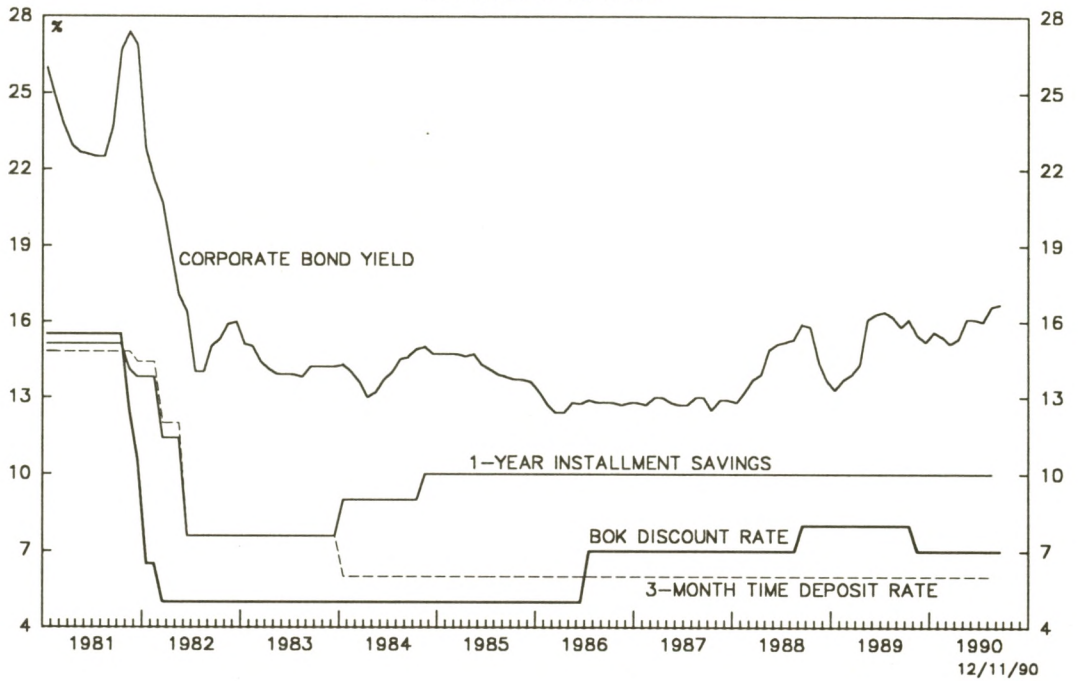
The recent slowdown in Korean exports from late 1988 can be explained both by the delayed effects of Won appreciation from 1986 and by the continuing slowdown of domestic demand in the USA. Between January 1986 and June 1989 the Korean Won appreciated from 892 to 658 against the US\$, a rise of 26%. The real effective exchange rate rose from an index value of 81 to 111, indicating a 37% loss in overall competitiveness (see Chart 3), and it is this which has contributed substantially to the switch from current account surplus to deficit in the first half of 1990. Since mid-1989 the Won has depreciated from 658 at its peak to 720 recently, but due to the rise in inflation in Korea to close to 10% the real effective rate has only declined slightly. Both the high level of the real effective exchange rate and some estimates of purchasing power parity suggest that the currency remains overvalued, which means it will be hard for Korea to stage a strong recovery until either there is further currency depreciation or unless there is a substantial domestic deflation.

Already the appreciation in the currency and the resultant slowdown in exports has led to a sharp downturn in the earnings of Korean exporters. This has been one of several adverse influences in the stock market since late 1989. The stock market had its first peak in March 1989, followed by a secondary peak in September 1989, both roughly ten times above the level of December 1985 (see Chart 5). The subsequent crash was at one level a result of stagnation in the export sector, labour unrest, and the diversion of funds into real estate speculation. At a deeper level tightening liquidity and rising interest rates have led to an extensive restructuring of portfolios which is not yet completed.

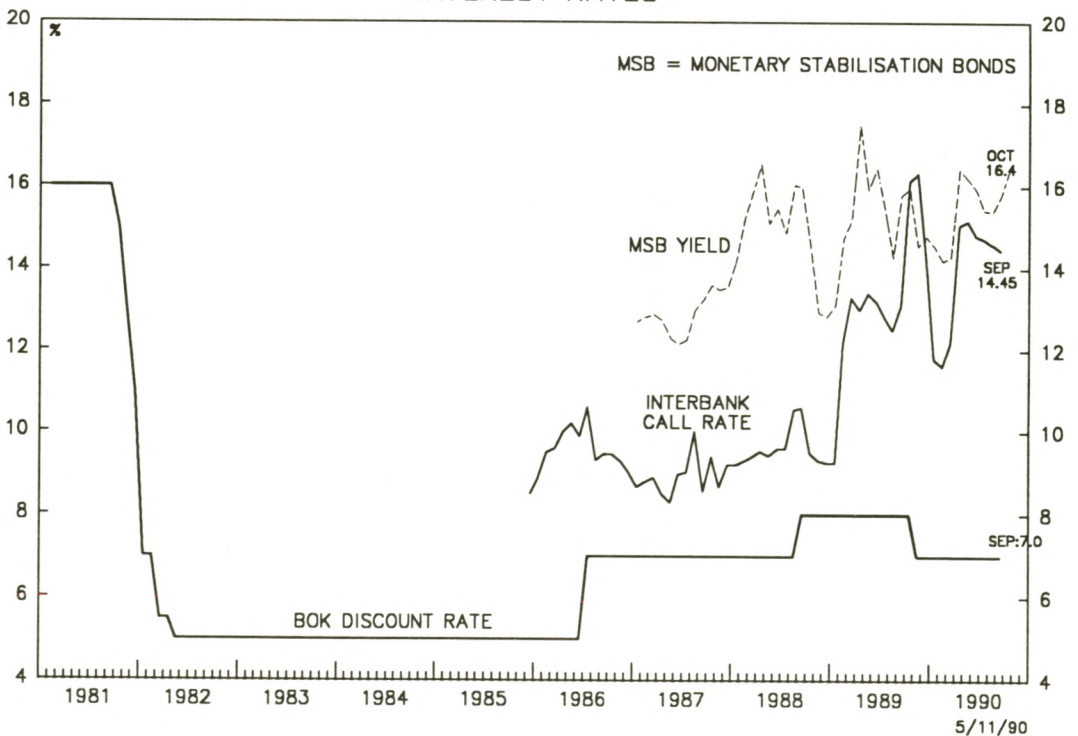
Examination of trends in liquidity in Korea are hampered by the existence of a large and active "kerb" market, or black market for credit outside the official banking system. Historically the Korean authorities tended to keep interest rates in the largely government-owned or government-controlled banking system below the level they would have been in a free market. Major borrowers such as the export-oriented chaebols benefitted from an ample supply of cheap credit from the banks but all other borrowers, excluded by regulations and discriminatory preferences for exporters from borrowing funds at realistic rates, were forced to borrow from unregistered finance houses at substantially higher rates. At different times attempts have been made to reform this system, but as can be seen from the interest rates shown in Chart 7, there is still an extremely wide gap between the interest rates available to the ordinary retail depositor of three-month money and the rates paid by the corporate borrower who issues bonds. Since there are no statistics for the amounts lent or deposited in the unofficial kerb market, it is not possible to construct an aggregate figure for money or credit which includes both the official and unofficial sectors.

The data shown in Chart 6 are the official definitions of money i.e. cash currency held by the public plus deposits in licensed banks and savings institutions, not including funds deposited with unofficial lending institutions. Judging by these figures there was a fairly continuous monetary acceleration of M2 and M3 between the start of 1985 and the end of 1987. M2 then continued to grow at close to 20% until the end of 1989 while M3 gradually slowed from 30% at the end of 1987 to just below 25% by late 1989. However, it is possible that, since stock prices and real estate prices were booming during this period, more and more funds were being transferred from M3-type deposits into the unofficial sector where returns were much more attractive. Nevertheless, the rise in official money market rates during 1989, such as the call rate shown in Chart 8 or (from an earlier date) the yield on Monetary Stabilisation Bonds

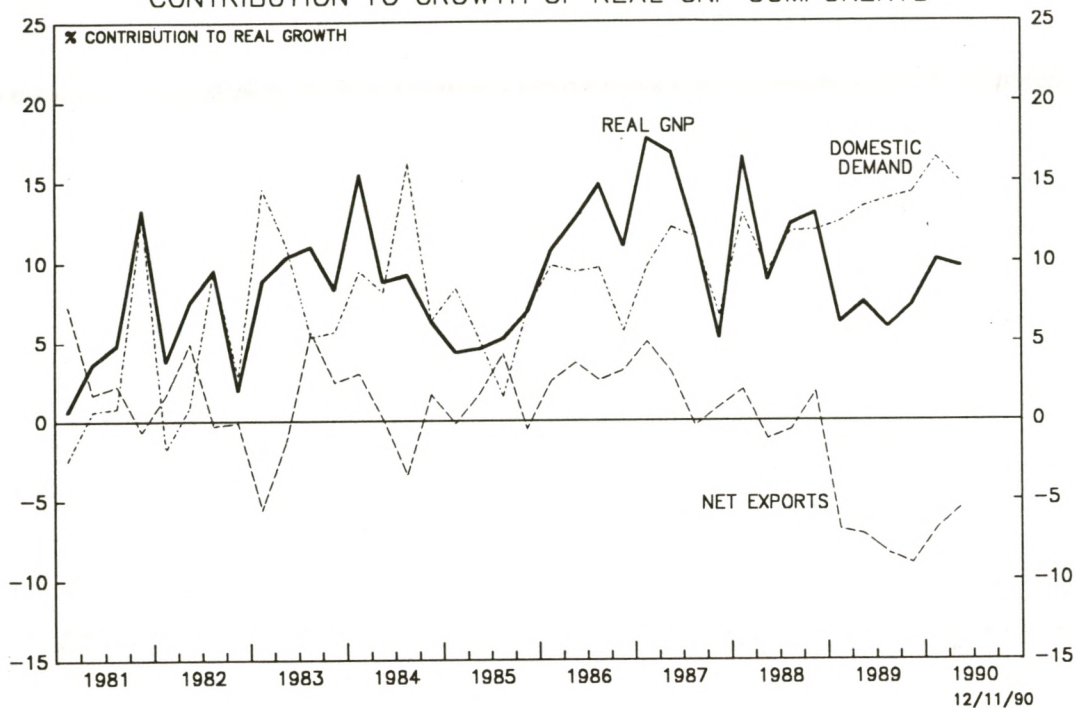
S.KOREA: CHART 7
INTEREST RATES



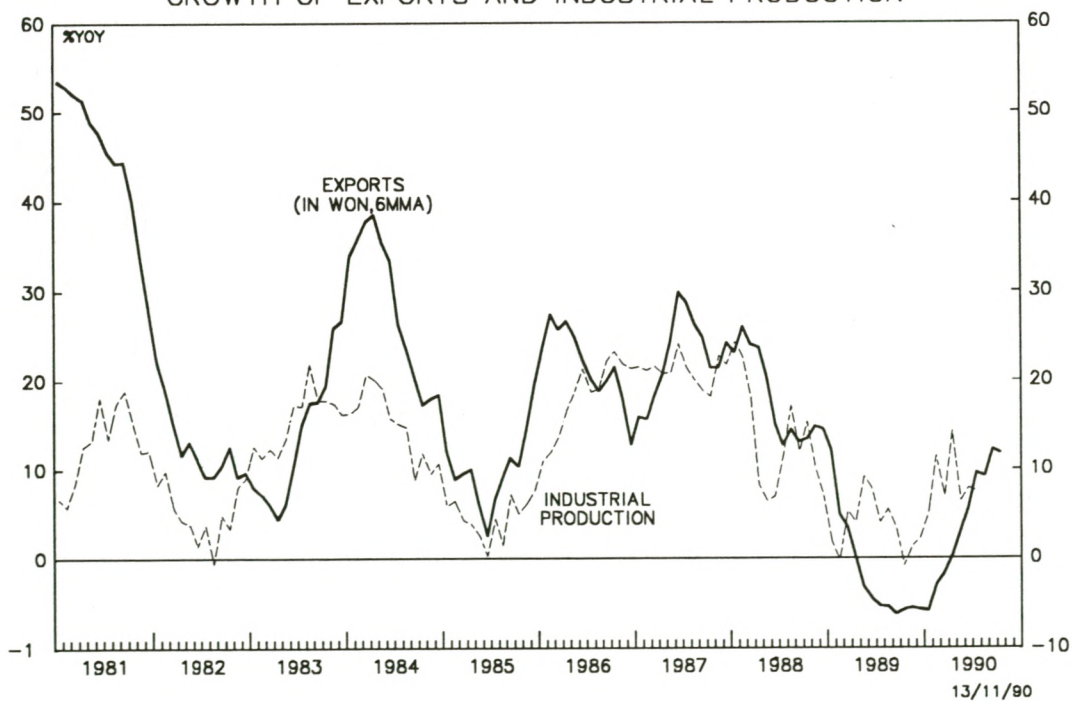
S.KOREA: CHART 8
INTEREST RATES



S.KOREA: CHART 9
CONTRIBUTION TO GROWTH OF REAL GNP COMPONENTS



S.KOREA: CHART 10
GROWTH OF EXPORTS AND INDUSTRIAL PRODUCTION



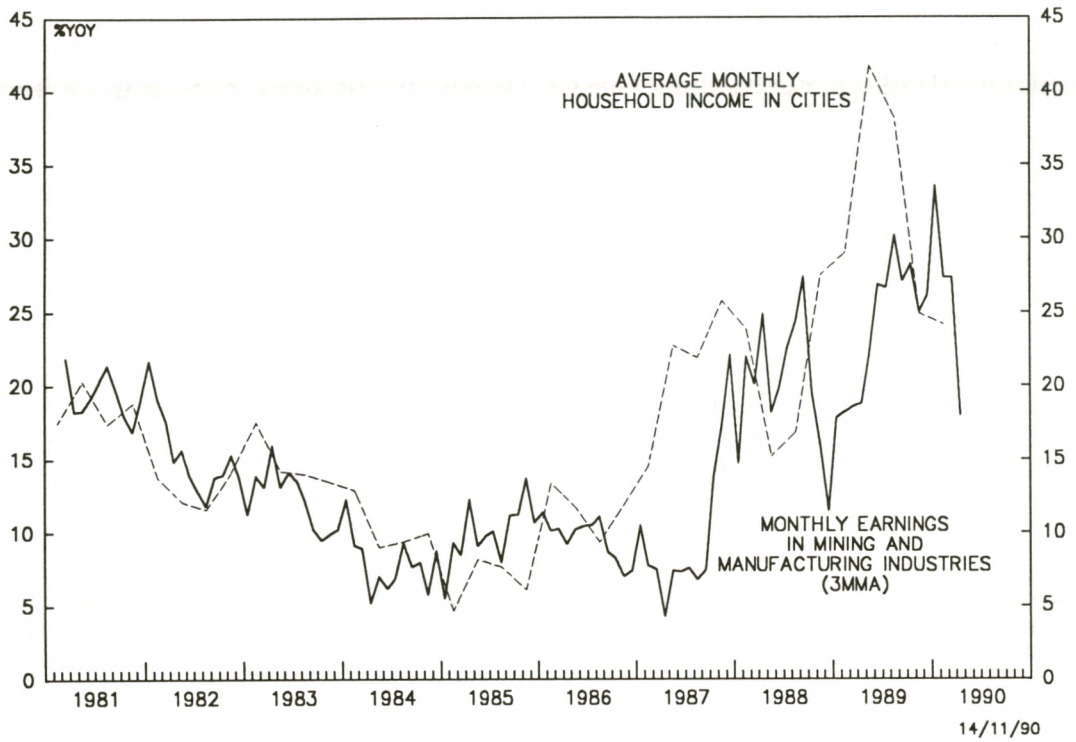
(see AMM Vol. 11 No. 1, Jan.-Feb. 1987 p. 17 for an explanation of their role in the Bank of Korea's sterilisation operations) suggest that liquidity was being tightened by the authorities, even though the M2 figures were not decelerating significantly. This may help to explain why the stock market peaked in March and September of 1989 and then started falling steeply, though the global downturn in stock markets in 1990 would also have played its part.

After tightening for most of 1989 the authorities suddenly changed course in November 1989. First they lowered the Bank of Korea's discount rate from 8% to 7% in November 1989 (Chart 7). Second, in December they injected 2.8 trillion Won into the banking system in a bid to support the reeling stock market and to increase loans for exports, plant and equipment investment, and housing. Call rates fell sharply from 16% to 12% (Chart 8) as these funds entered the system. In the same month M2 rose by 4.1 trillion Won. This sudden injection caused the M2 and M3 year-on-year and M3 year-on-year growth rates to surge to 25% and 30% respectively. But since no further injections were made, the interbank call rates soon returned to 15%. Moreover, since the absolute level of M2 has hardly risen at all subsequently, the year-on-year growth rate of M2 has gradually dropped back towards 20%. The growth rate of M3, however, has remained somewhat higher than its November 1989 rate. As can be seen from Chart 5, this once-for-all injection of funds had no sustained impact on the stock market, and in the prevailing climate it almost certainly had no perceptible effect on the other sectors it was intended to benefit. The main result of that episode will therefore merely be to raise inflation to a higher rate than it would otherwise have been, and to delay its reduction.

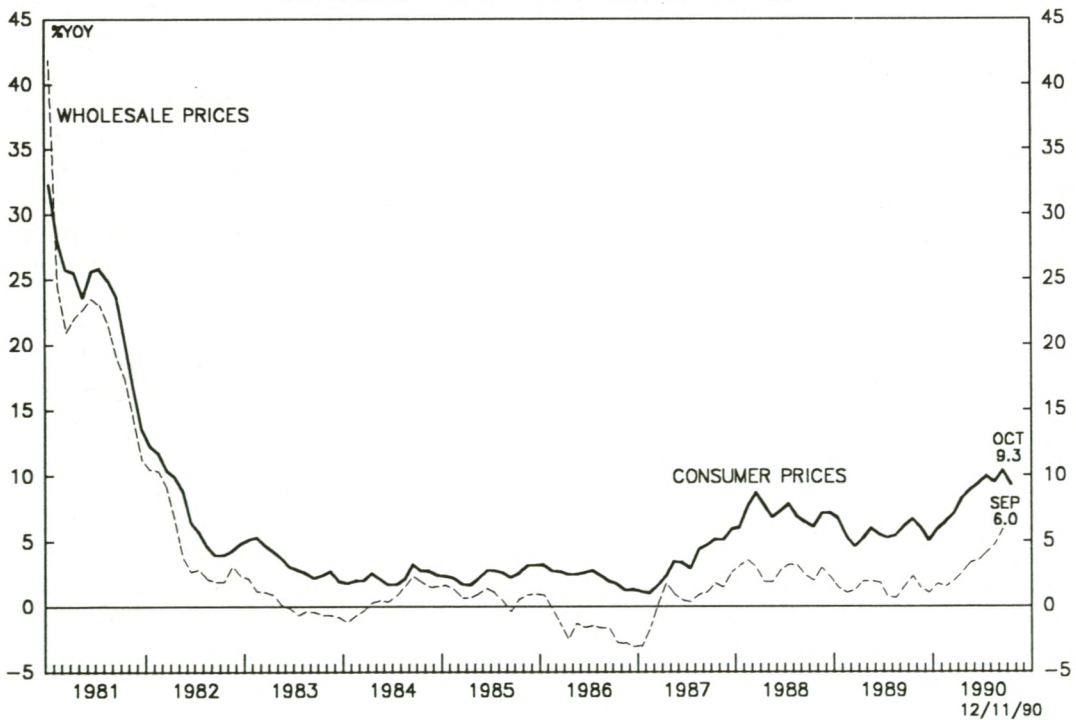
Additional reasons why the reduction of the discount rate and the injection of funds have not succeeded in reviving the economy can also be invoked. In the first place inflation picked up quite sharply in the first half of 1990, rising from 5% to 10% (Chart 12) and absorbing much of the additional purchasing power. Second, since so much of the economy was already suffering an export-induced recession, adding to domestic purchasing power was not likely to bring a very favourable result. Chart 9 shows the contribution to real GNP of the major components -- domestic demand and net external demand. Since 1987 real domestic demand has been booming, while net exports (in real terms) have been on a downward trend. As long as the overvaluation of the currency persists (Chart 3) and monetary growth (M2) remains above 15%, this growth pattern is likely to continue. The overvalued currency will restrain exports while strong domestic demand will suck in imports. Only a genuinely tight monetary policy will produce the domestic slowdown necessary to curtail imports and slow inflation, thereby helping to make the currency competitive once more.

In view of the enormous importance of exports in Korea's overall GNP -- exports accounted for 36.7% of total GNP in 1987 -- they play a key role in determining the overall direction of industrial production, as shown in Chart 10. Until the currency is allowed to become more competitive (by reducing inflation in Korea or by outright devaluation), and/or until demand in major overseas economies recovers, there is unlikely to be a strong revival in Korean industry. It will be futile for the Korean authorities to pump still more money into the Korean economy in order to generate a recovery. As indicated above, domestic demand is already very strong in both real and nominal terms, with the result that such a move would only raise inflation and/or weaken the currency.

S.KOREA: CHART 11
WAGES AND HOUSEHOLD INCOME



S.KOREA: CHART 12
CONSUMER AND WHOLESALE PRICES

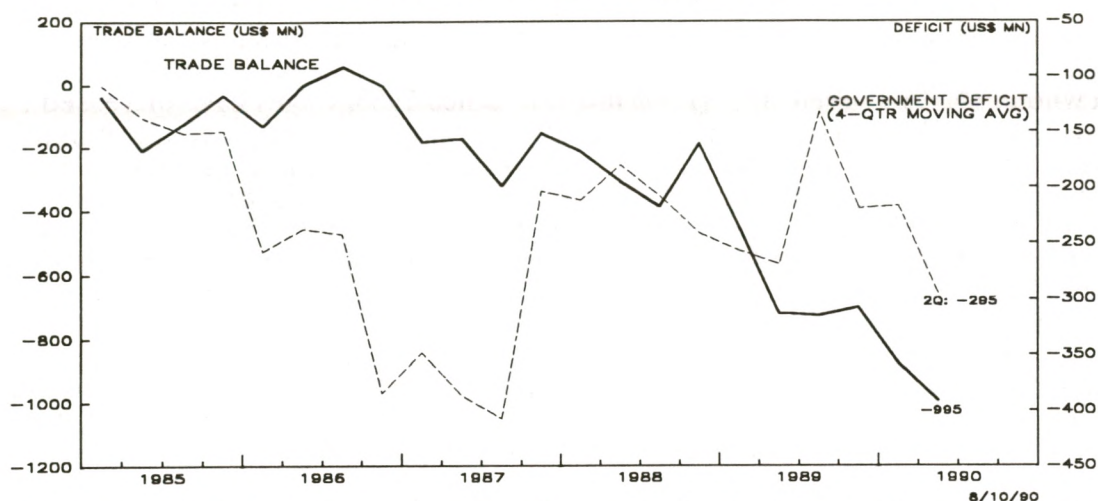


One aspect of the inflationary process in Korea deserving special attention is the enormous increase in wages which has occurred over the past three years. Based on the data for earnings in the mining and manufacturing sectors shown in Chart 11, wages increased by 21% between April 1989 and April 1990, 24.6% in the year 1989 as a whole, 19.1% in 1988, and 11.3% in 1987. Since 1985, wages have increased by almost 90% in Won terms, or about 130% in US\$ terms. Similarly, average monthly household incomes of city-dwellers have increased by astonishing amounts: 32% in 1989, 21% in 1988, and 21% in 1987. The cumulative increase over the period from 1985 to mid-1990 has been about 150% in Won terms; or 210% in US\$ terms. As a result, there has been a significant rise in the wage share of national income relative to profits. Between 1986 and 1989 the wage share of GNP rose from 40% to 44%, while the profit share fell from 41% to 35%. In US\$ terms, Korean wages have risen far more than wages in other NICs (see chart on p. 48). Since wages typically lag behind most other nominal economic indicators, the resulting squeeze on corporate profit margins will probably continue to intensify for several months. However, there are at least some signs that the wage explosion is being contained.

It is true that for the first nine months of 1990 M2 has grown at an annualised rate of 14.7%, but in view of the prolonged background of rapid money growth since 1987 (i.e. when M2 rose to over 20% and M3 to 30%), it seems probable that Korea's inflation will rise somewhat further before the current inflationary episode starts to taper off. CPI inflation -- shown in Chart 12 -- rose to the 10% level for the first time in this cycle in July. The oil price hike will temporarily raise consumer prices further -- to perhaps 12%. (The cabinet and ruling party's initial reaction to the August oil price hikes was to refuse to allow any increases in public transport fares or city water rates, in effect transforming the would-be increase in prices into a public sector deficit. This policy of price subsidisation can surely not be continued for very long so it is probably only a matter of time before the increases in international prices are transmitted to the domestic economy.) But since deliberate currency depreciation combined with a relatively easy monetary policy have historically comprised the Korean strategy for economic recovery, inflation could remain close to double digits for at least the next year.

SUMMARY AND FORECAST: The upward appreciation of the Korean Won in the years 1986-89 combined with enormous wage increases dealt a severe blow to Korean exports, and has converted the external surpluses of those years to deficits again in 1990. Meanwhile, three years of M2 growth at close to 20% p.a. and M3 growth ranging between 25% and 30%, combined with a large monetary injection in December 1989 mean that domestic demand remains strong in both real and nominal terms. As the revival of the large export sector must await a recovery in overseas markets, it seems unlikely that domestic demand will be sufficient to sustain real output and the rapid monetary growth will therefore increasingly be reflected in higher prices rather than stronger growth. Near double-digit inflation combined with continuing 14% p.a. M2 growth will not make for an improvement in liquidity conditions, and this will not help asset values in the stock market. Moreover, until there is a reasonable prospect of better earnings in the export-related industrial sector through a recovery abroad and/or currency depreciation, it is hard to envisage a powerful stock market recovery. Korea's economic adjustment after its 2-stage cyclical upswing of 1983-84 and 1988-89 is therefore still only in its early stages.

PHILIPPINES: DEVALUATION IS REQUIRED

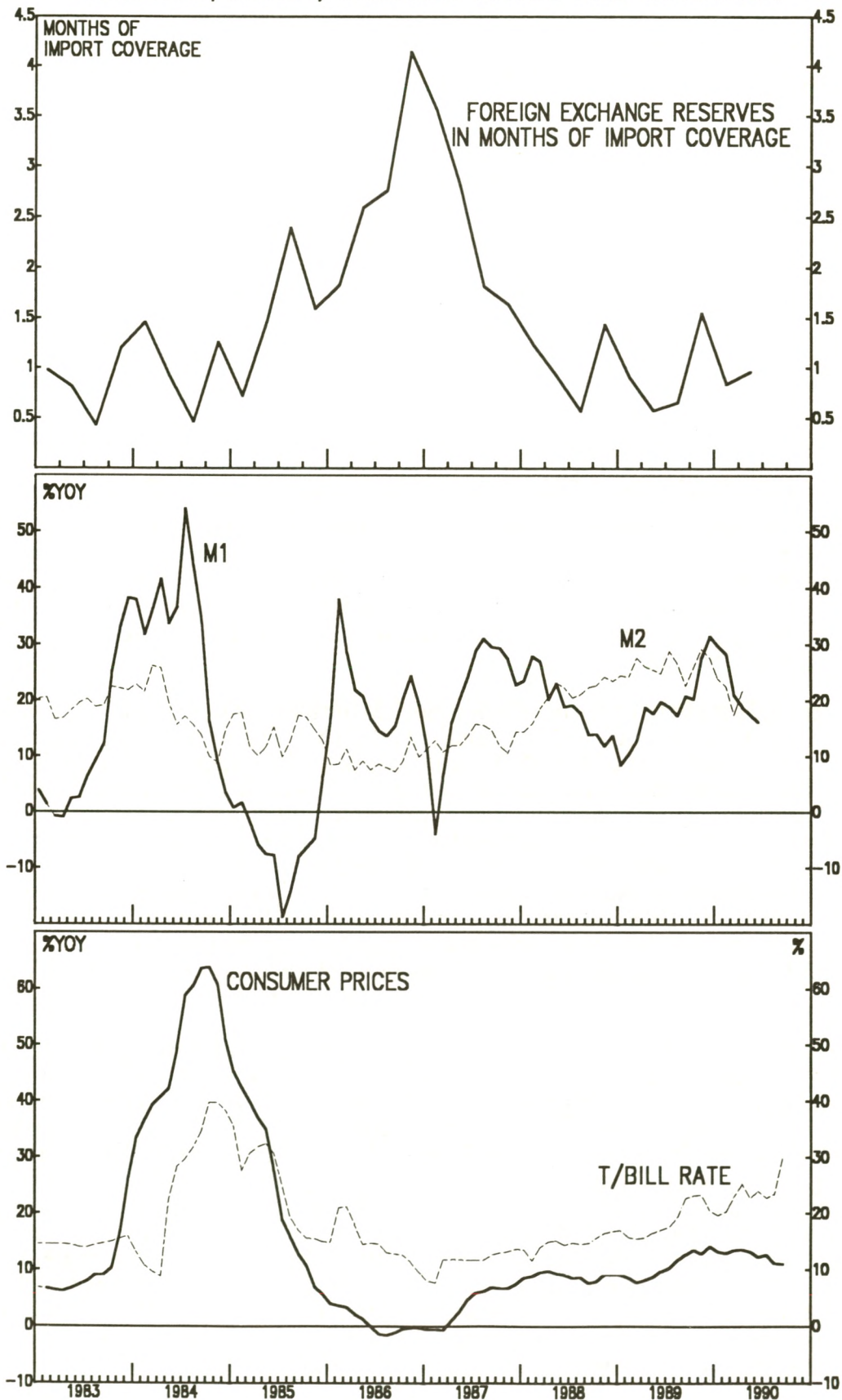


There is very little that one can say about the Philippines at the moment that is positive. Even prior to the Gulf crisis the Aquino government was having to contend with deteriorating trade and budget deficits and rising inflation, not to mention natural disasters and political unrest. The surge in oil prices will only compound these problems as oil comprises almost 20% of Philippine imports, making it one of the most vulnerable of the Asian economies to oil price hikes. Furthermore, the Gulf Crisis has led to an immediate loss of 70,000 Filipino jobs in Iraq and Kuwait. As a result, the government has revised its GDP growth forecast down for a third time to 3.6%, from an original target of 6%, but even this may prove to be optimistic.

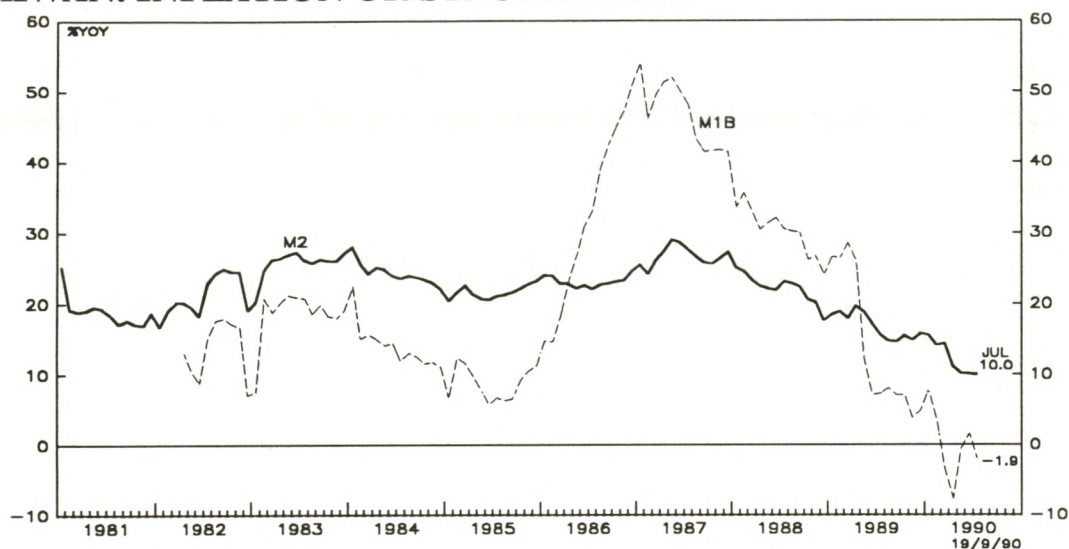
Although foreign exchange reserves at the Central Bank have risen by a third compared to a year ago, at only 1 month's imports they remain dangerously low given (1) the trade deficit for the first six months of 1990 grew by 62.7% year-on-year; imports grew 17.5% whilst exports grew by only 3.7%, (2) the growth rate of fixed capital investment fell by 49% over the same period, (3) the public sector deficit rose by 22% over the first half of 1990, (4) remittances from Iraq and Kuwait have ceased, and (5) foreign debt outstanding is around US\$26 billion. In addition, the Central Bank has been exhausting reserves by defending a Peso that has already depreciated in excess of 10% against the US\$ this year. With money supply and bank lending still exhibiting excessive growth rates, wages rising at over 20% per annum, a falling currency and double digit inflation, interest rates have been pushed up to over 30%. However, it seems unlikely that high interest rates alone will be the answer to the Philippines' catalogue of problems and as in 1962, 1970 and 1983 the Peso will have to be devalued. Further rises in interest rates are unlikely as these would cause even greater hardship in an economy that is trying to cope with the absorption of 70,000 displaced Filipinos, and where political instability is ensuring that investment and tourism remain depressed. Nevertheless, inflationary pressures are still building and in the absence of further tightening, devaluation would appear to be the only feasible solution.

Since this article was written, the Central Bank of the Philippines allowed the Peso to fall 8% against the US\$ on Wednesday 31st October in what was seen as a de facto devaluation.

THE PHILIPPINES RESERVES, MONEY, INTEREST RATES AND INFLATION



TAIWAN: INFLATION OR STAGFLATION?

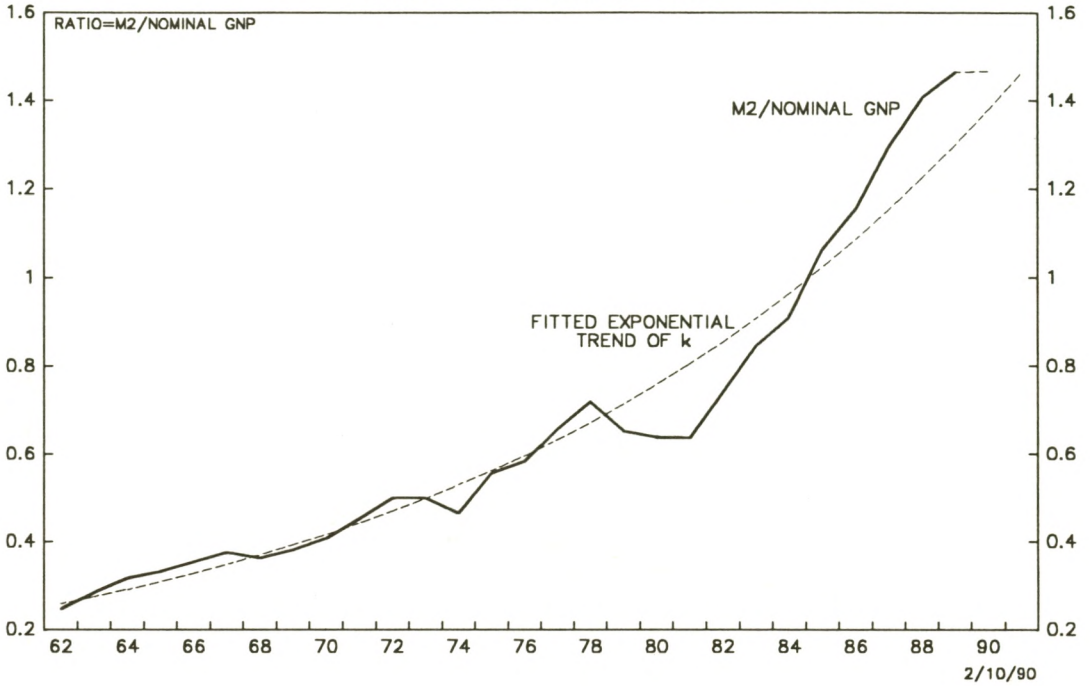


Taiwanese money supply growth has been falling since the middle of 1987 yet inflation continues to rise. The initial rise can be explained by the sharp increase in the rate of growth of the money supply resulting from the accumulation of foreign reserves over 1981-85, which also produced the explosive growth in land and equity prices. However, following three years of monetary deceleration, inflation would normally be expected to be falling.

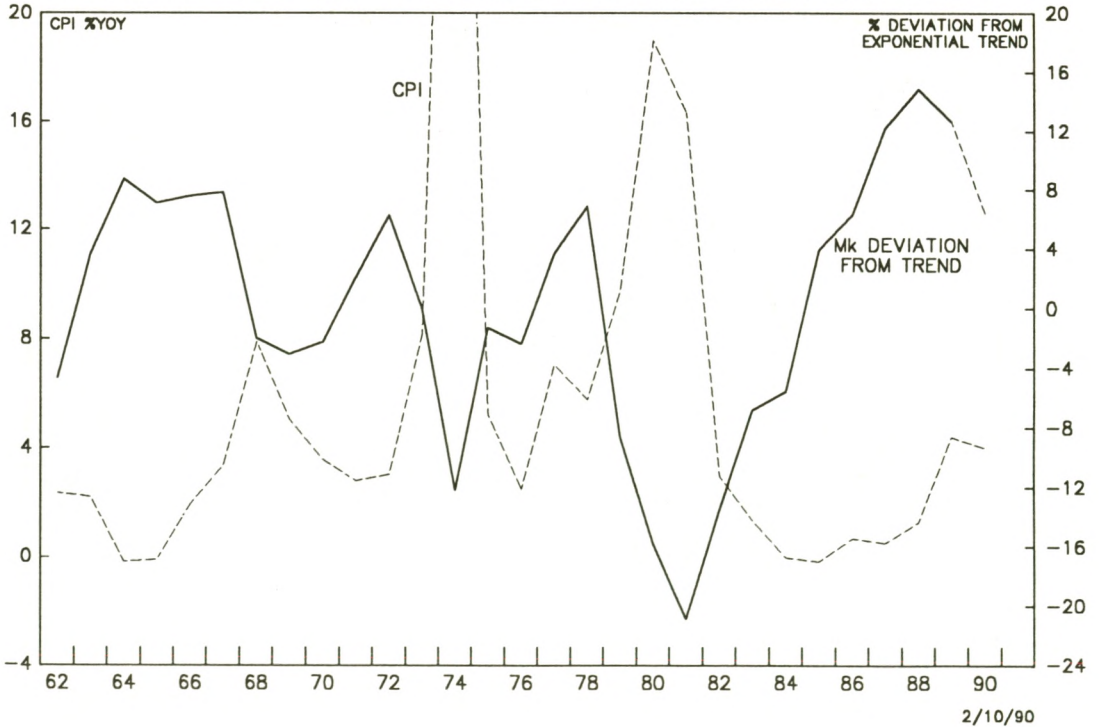
The potential for further rises in inflation can be considered by examining Taiwanese Marshall k (k), the ratio of M2 (M) to nominal GNP (Y), relative to its long term trend. A simple rearrangement of $k = M/Y$ yields $M = kY$ which suggests that if k is fixed then Y can be determined through variations in M . Plotting Taiwanese Marshall k against its fitted exponential trend line, it can be seen that k has risen continuously since the early 1960s reflecting empirical evidence that the propensity to hold money increases as real incomes rise. However, the rapid expansion of the monetary base over the mid 1980s has resulted in k deviating substantially above its trend. In the long run this is unsustainable and can only be rectified by a fall in money growth relative to GNP, or more usually a relative rise in nominal GNP. At the tail end of the business cycle this is likely to be achieved through increased price levels rather than increased output.

Towards the end of 1989, k was approximately 12% above trend implying the potential for double digit inflation over 1990. However, M2 has continued to decelerate over 1990 and seems only likely to grow around 12% for the whole year. Meanwhile, real GNP growth is expected to be around 5.5% and inflation around 6% which implies a fall in k to around 7% above trend by the end of 1990. This suggests that inflation is peaking or has peaked and that the medium term problem for the economy will therefore be one of Taiwanese-style stagflation. There seems to be little prospect for a pick up in the growth of the substantial Taiwanese export sector and business confidence remains at rock bottom following the collapse of the stock market and sharp falls in property prices. This is reflected in massive capital outflows which are further draining liquidity from the economy. As a result, real GNP in 1991 is only likely to grow at around 5% whilst k implies that inflation will remain around 6% as the final effects of the monetary overhang work through.

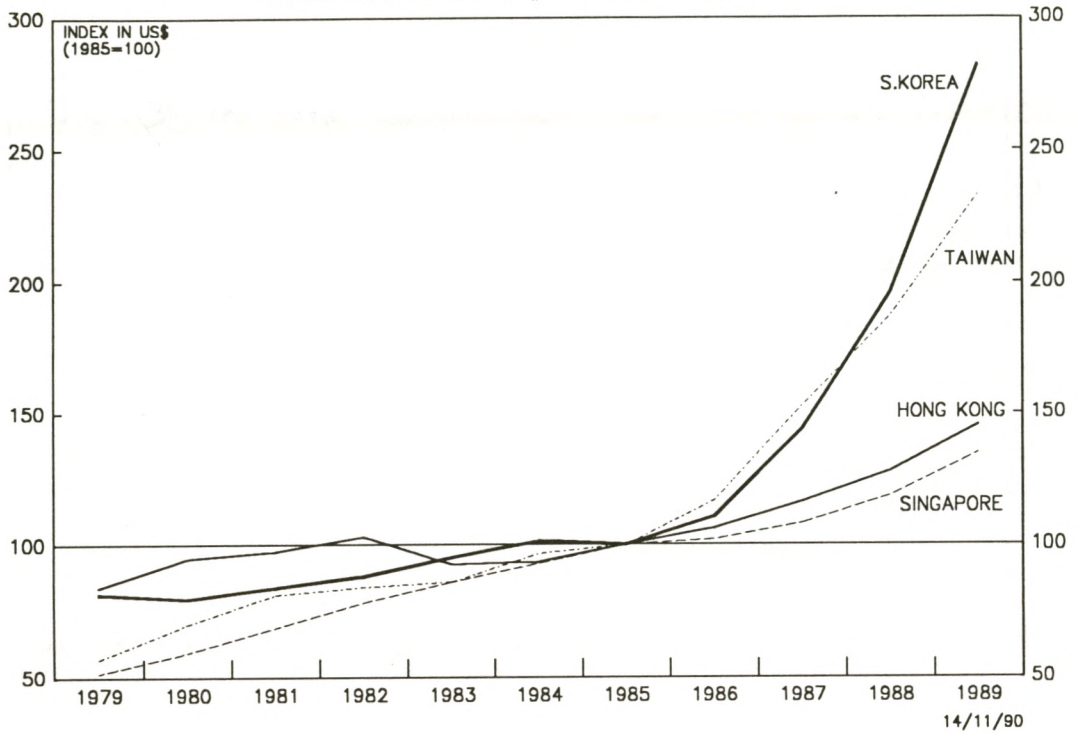
TAIWAN: MARSHALLIAN k



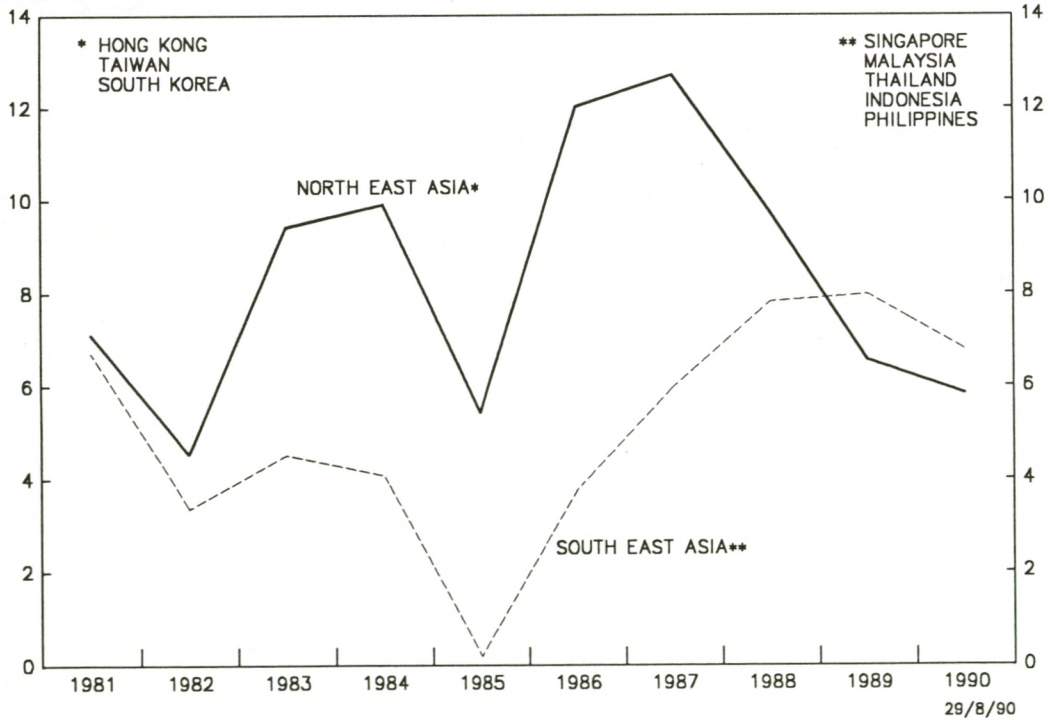
TAIWAN MARSHALLIAN k PERCENTAGE DEVIATION FROM TREND AND INFLATION



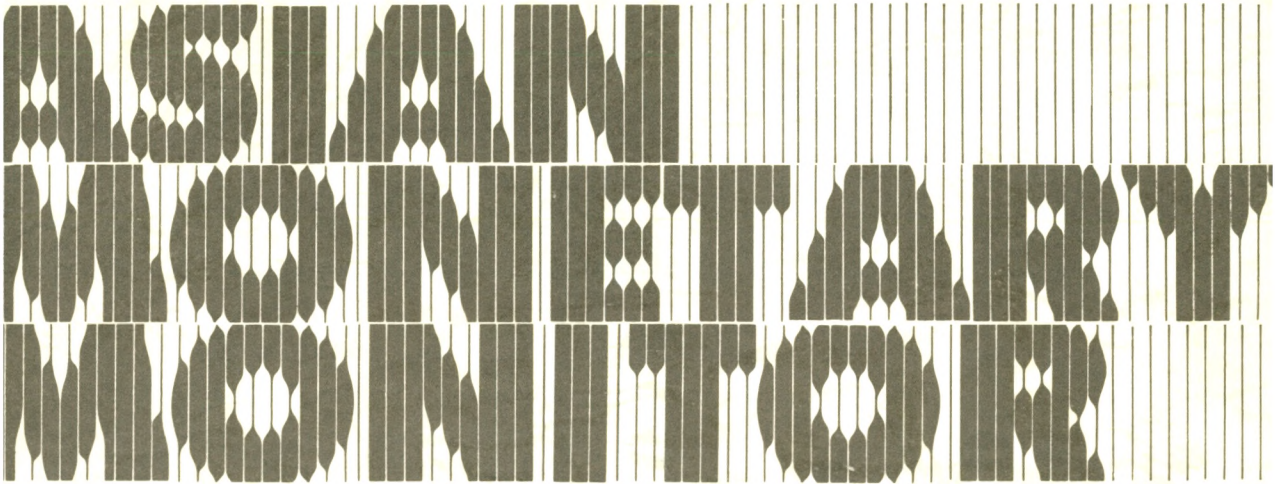
WAGE COSTS IN US\$ IN THE ASIAN NICs



REAL GDP WEIGHTED GROWTH RATES OF NORTH EAST AND SOUTH EAST ASIA







CONTENTS

	Page
AUSTRALIA	
The Business Cycle Revisited by Andrew Freris	1
HONG KONG	
The Changing Structure and Competitiveness of the Hong Kong Economy by John Greenwood	21
JAPAN	
The Outlook for Land Prices and Land Policy Reform by Simon Ogus	32
ECONOMIC CAPSULES	
Singapore: Money Growth Declining But Liquidity Indicators Rising	AFF 47
New Zealand: New Government, Same Policies	SLO 49





John G. Greenwood
Publisher
Group Economist
G.T. Management PLC



Andrew F. Freris
Senior Economist
G.T. Management (Asia) Ltd.



Simon L. Ogus
Economist
G.T. Management (Asia) Ltd.



Sook-Yee Li
Statistics



David Yu
Statistical Assistant



Isabella Ling
Administration

© ASIAN MONETARY MONITOR LTD., HONG KONG 1990

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the editor.

Asian Monetary Monitor is a bimonthly publication specialising in the analysis of economies along the Asian Pacific Rim. Sold by subscription only, price US\$200 p.a. inclusive of air mail delivery to any part of the world. Correspondence and subscriptions should be addressed to the Editor, Asian Monetary Monitor Ltd., GPO Box 1296 Hong Kong.

ASIAN MONETARY MONITOR

November - December, 1990

Vol.14 No.6

AUSTRALIA THE BUSINESS CYCLE REVISITED

Introduction

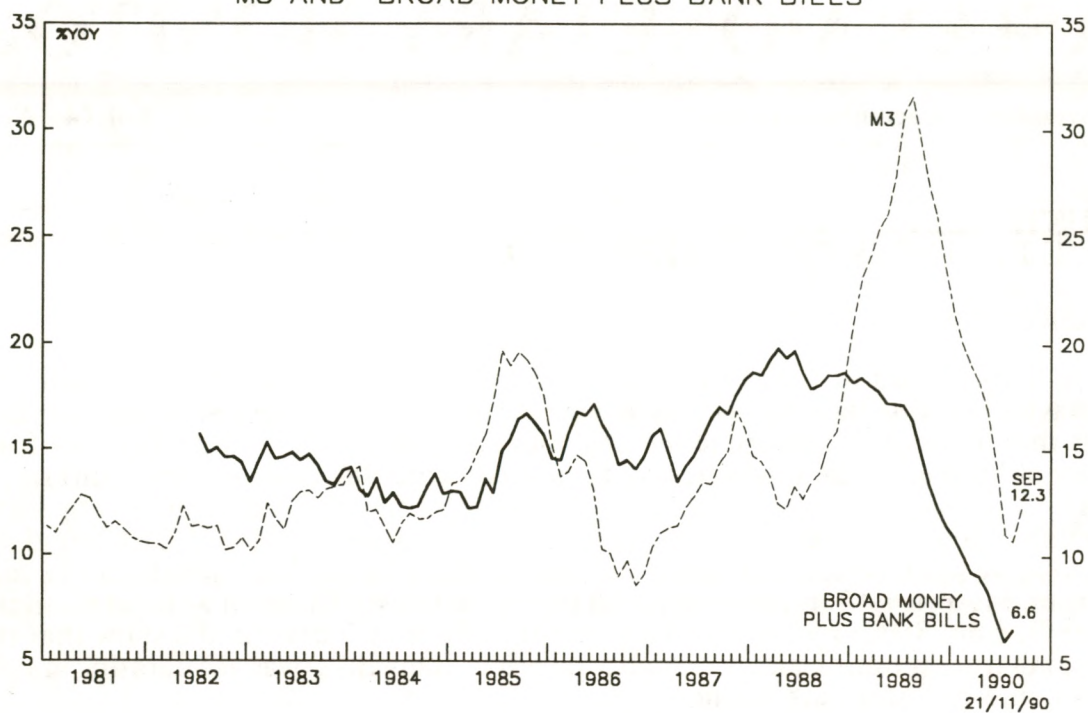
Two articles in AMM (Vol. 13 No. 5 and Vol. 14 No. 1) have examined the behaviour of monetary aggregates in Australia since 1987. The gist of these studies was that in order to determine the beginning and the possible turning point of the present business cycle it was necessary to reconstruct the money stock figures. As Chart 1 shows, M3 started to accelerate during April 1988 fuelled by strong bank lending. However, interest rates were rising throughout this period (Chart 2) and the yield curve was inverted. In fact overall bank credit had started to expand nearly a year earlier, in April 1987, financed through the use of bank bills which were, at the time, exempt from Statutory Reserve Deposit regulations. Charts 1 and 2 show that the expanded definition of money (Broad Money plus Bank Bills) was accelerating in 1987 when interest rates were falling.

By April 1988 the authorities started to push up interest rates. They were worried by the deteriorating trade and current account balances (Chart 3) as well as absolute and relative rising inflationary trends (Chart 4). However, there was still a considerable head of steam from the earlier credit expansion to push its way through to spending. The successive increases in interest rates, which by the middle of 1989 had raised overdraft rates in excess of 20%, and the sharp deceleration of money stock since the same period have taken a severe toll of the Australian economy. Chart 5 tells part of the story in terms of the decline in the growth of investment and housing activities during most part of 1989-90. These sharp falls finally led the authorities to commence reducing interest rates, starting in January 1990. By the last quarter of the year cash rates had fallen by 500 basis points.

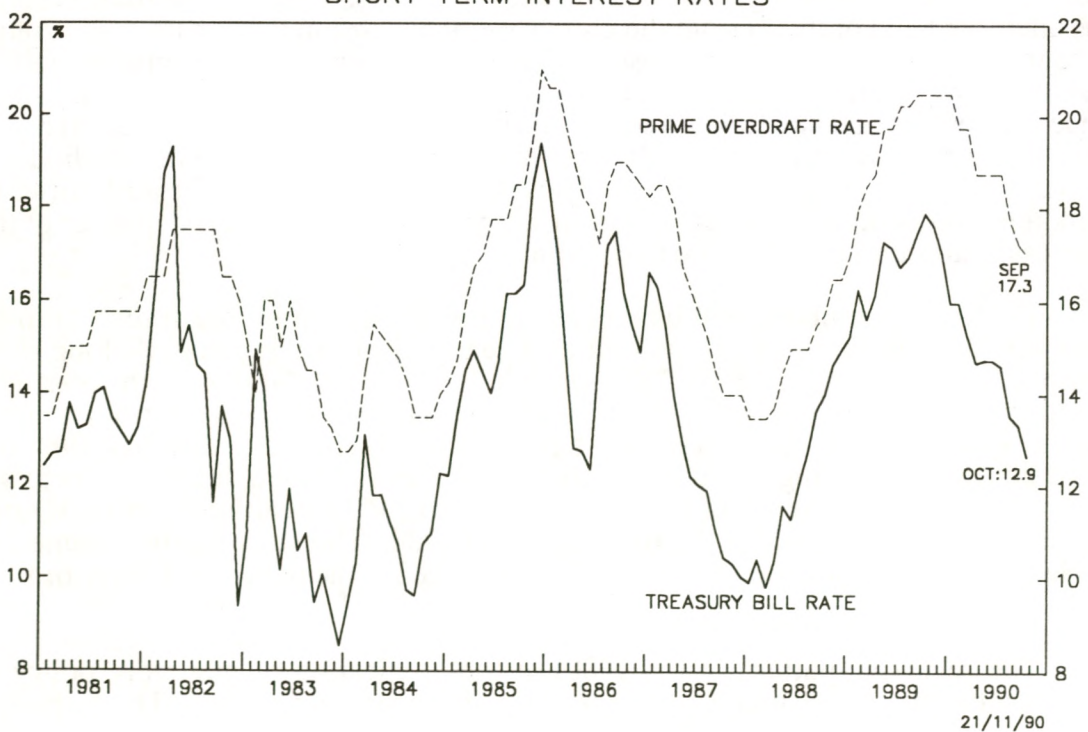
The recession of 1989-90 has reopened the discussion on Australia's stop-go policy-induced business cycles, as well as a reappraisal of the country's long term prospects. The recession of 1982-83, which led to negative GDP growth rates, was eased by monetary policy measures coupled with the introduction of Australia's home grown version of incomes policy, the wage Accord. By the last quarter of 1984 the trade balance had swung into deficit, monetary policy tightened, leading to nearly a 50% fall in the rate of growth of M3 from mid 1985 to mid 1986, although interest rates had already started to fall by the first quarter of 1986. The story has now come full circle with another monetary squeeze initiated in 1988 at the behest of a deteriorating current account.

The recurring pattern in the 1980s of the application of monetary policy to correct a balance of payments problem is not, however, that simple. The following

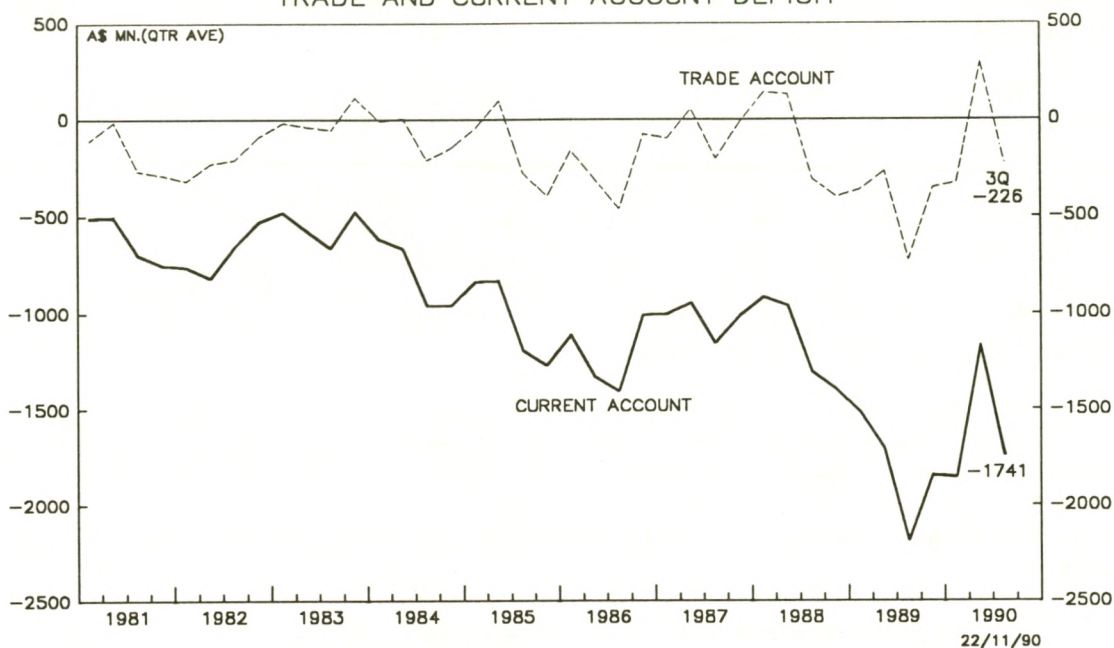
AUSTRALIA: CHART 1
M3 AND BROAD MONEY PLUS BANK BILLS



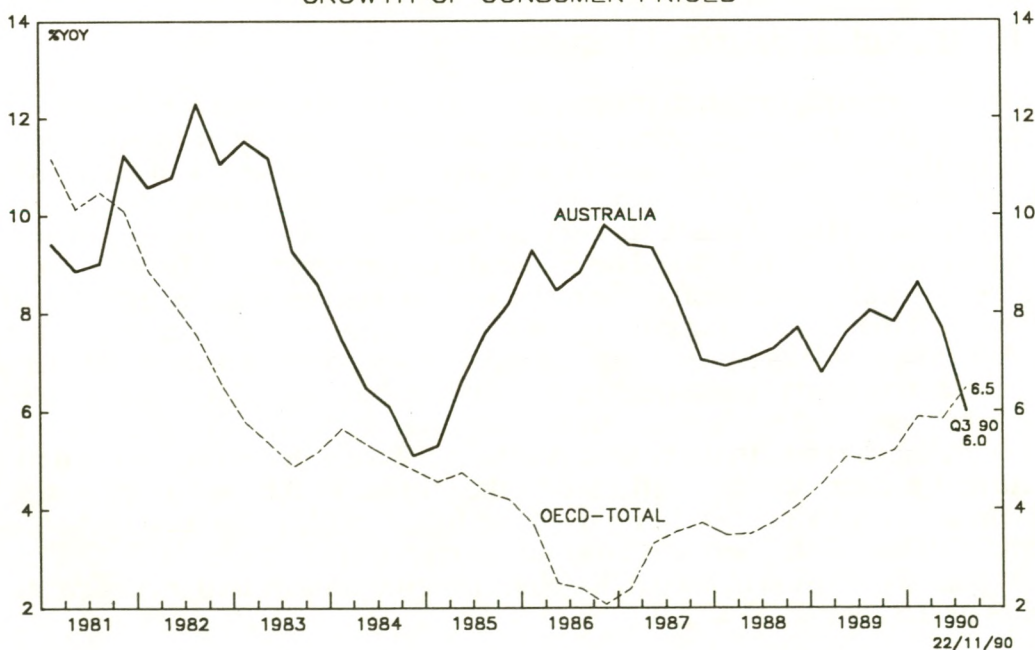
AUSTRALIA: CHART 2
SHORT TERM INTEREST RATES



AUSTRALIA: CHART 3
TRADE AND CURRENT ACCOUNT DEFICIT



AUSTRALIA: CHART 4
GROWTH OF CONSUMER PRICES



three factors must be taken into account in order to understand both the reactions of the authorities and policy-makers and also to evaluate the options open as the Australian economy is now apparently troughing out.

The first factor is the complex interrelationship between the current account deficit, the capital account and the behaviour of savings and investment in the Australian economy. The relationship is complex because it also involves the role of the exchange rate of the Australian dollar which has been on a reasonably clean float since December 1983. The second factor is the counterpart of the current account deficit, namely the surplus in the capital account and the emergence of Australia as a major international debtor country. Here again the issue is not straightforward as nearly 90% of the net external debt is private rather than government, thus reflecting private savings-investment decisions.

The third, and final, factor is the role of the wage Accord, a highly institutionalised form of incomes policy primarily designed to control wage inflation and maintain high levels of employment. A potentially unexpected result of the Accord was the impact it had on the capital account of the balance of payments, thus linking it back to the main policy preoccupation of the monetary authorities, the deficit in the current account.

The aim of this study is to examine these three factors in turn in the context of the current stage of Australia's business cycle. Particular attention will be paid to the role of interest rates in the recovery phase and the policy options available in order to avoid repetition in the 1990s of the disappointing experiences of the 1980s.

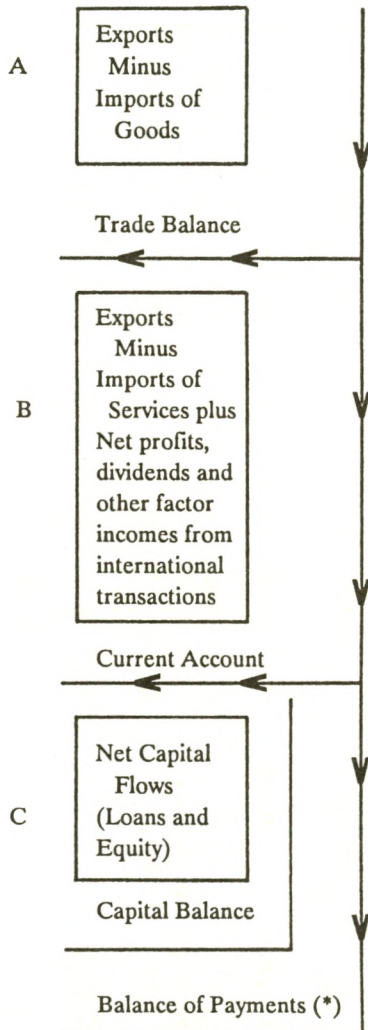
The Dynamics of the Balance of Payments

It is a frequently forgotten truism that the balance of payments balances. Under a system of fixed exchange rates an excess demand or supply of foreign exchange reflecting the net position of current and capital transactions, will cause foreign exchange reserves to vary. If the increase or decrease in these reserves persists over a long time period then it would appear that the foreign exchange rate has been set at a disequilibrium level and should be changed. Under regimes of floating exchange rates the automatic adjustment of the rate should prevent imbalances from occurring. To the extent that the floating rate regime of the Australian dollar has been "clean", then Australia could not have a balance of payments problem. This may sound a quite precipitous statement to make despite the fact that ultimately all balance of payments "problems" resolve to two issues: either undesirable fluctuations in reserves or in the foreign exchange rates. In the case of Australia the issue in question is the deficit in the current account which is reflected in the surplus in the capital account. The problem is primarily defined in terms of the future perils of increasing Australia's external indebtedness. There are, however, two very distinct issues which have caused a great deal of confusion in the public debate over the current account deficit and the policies necessary to deal with it.

The first concerns the relationship between the current and capital account when the latter is defined to include only private transactions. As Table 1 makes clear the current account deficit or surplus measures the variation in the size of the foreign net obligations of the private sector. Given the existence of foreign exchange reserves

TABLE 1

BASICS OF BALANCE OF PAYMENTS ACCOUNTS



It now follows that

$$A + B + C (+D \text{ if appropriate}) = 0$$

Also in a simplified form

$$A + B = - C$$

i.e. the capital balance

is the counterpart of the
current account

(*) Depending on the format of presentation the following are either included in the capital balance or are shown as separate accounts.

- D {
- 1) Official transactions in the capital markets, such as government borrowing overseas
 - 2) Movements in official foreign exchange reserves
 - 3) Balancing items i.e. unrecorded items, statistical discrepancies and imperfections, or differences in timing. These items "balance out" the rest of the flows.

TABLE 2

BASIC MACROECONOMIC RELATIONS AND THE CURRENT ACCOUNT BALANCE

1. National Income accounting Identity $Y = C + I + G + X - M$
where Y is National Income, C, I and G are consumer, investment and government expenditures,
X is exports and M imports. All items measured in money terms.
2. Subtract from both sides taxes, T, and property etc. income paid overseas, R:

$$\underbrace{Y - T - R}_{\text{National disposable income, YD}} = C + I + \underbrace{(G - T)}_{\text{Government budget surplus or deficit}} + \underbrace{(X - M - R)}_{\text{Current account balance}}$$
3. Given that Savings, S, is $YD - C$, and rearranging:

$$\underbrace{(S - I)}_{\substack{I > S \\ \text{See Chart 9} \\ \text{and text.}}} = \underbrace{(G - T)}_{\substack{T > G \\ \text{a budget surplus since 1988.} \\ \text{See Chart 8.}}} + \underbrace{(X - M - R)}_{\substack{M + R > X \\ \text{Current account deficit. See Chart 3.}}}$$
4. Given that $(G - T)$ is balanced or in surplus since 1987/88 then we can approximate:

$$(S - I) = (X - M - R)$$

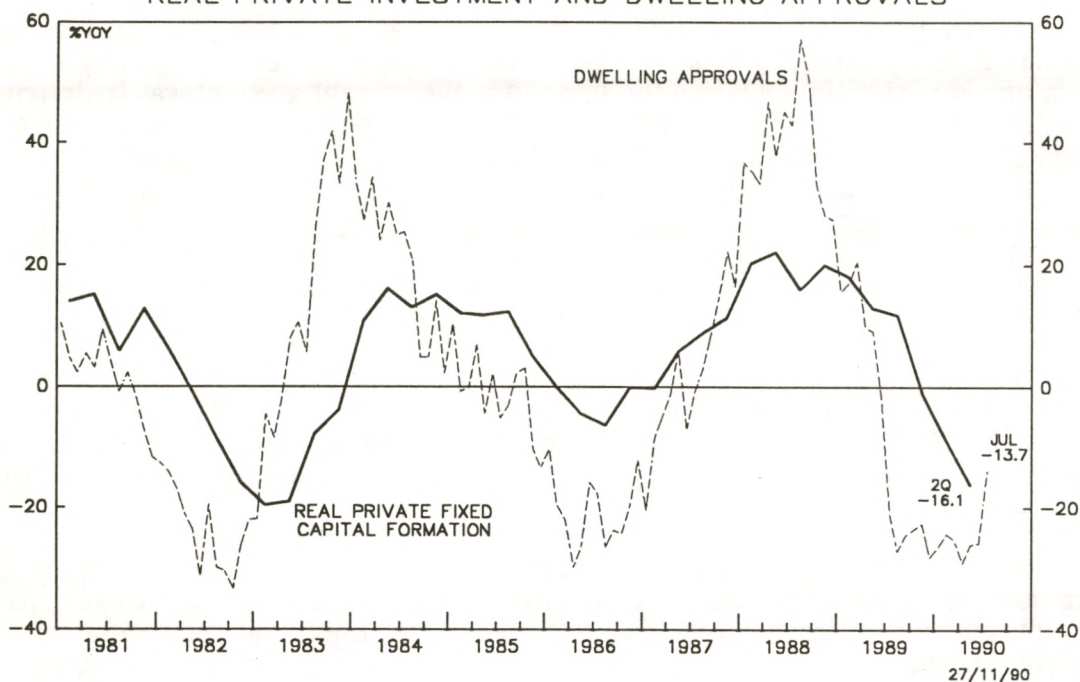
(or a fixed exchange rate regime) there is no necessary one-to-one relationship between the current and capital account surpluses or deficits. In the case of Australia, for example, from 1986 to mid 1990 the balance of payments exhibited, on average, a surplus meaning that the official foreign exchange reserves in terms of US dollars were also, on average, rising. During the same time the current account was in deficit, as was for most of the years, the trade account. The capital account was, of course, in surplus. Undue concentration in Australia on the movements of the current account may well have detracted from the development influencing its counterpart, the capital account. The essence of these arguments is that although on an ex post basis these accounting relationships must hold (balances balance), a transfer of capital in real terms can only occur when the current account of the lending country is in surplus and that of the borrowing is in deficit.

The second issue concerns the interrelations of the current account deficit (and therefore of its counterpart in the capital account) with basic macroeconomic balances. These involve private saving and investment, state consumption and investment and taxation. Table 2 shows in some detail the basic outlines of these relationships whilst Charts, 3 and 6 to 11 inclusive quantify them.

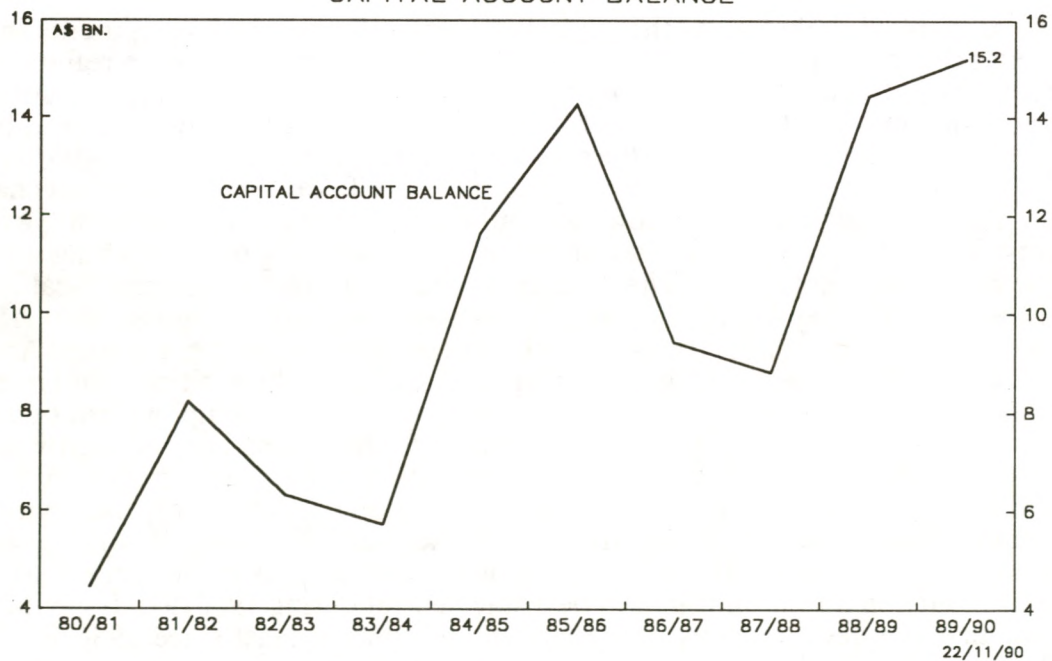
The current and capital accounts shown in Charts 3 and 6 are largely self-explanatory. Chart 7 shows the cumulative amount of external debt exclusive of equity. In mid 1980s nearly 90% of this debt was unofficial indicating that the indebtedness accumulated over time was almost totally the outcome of private sector decisions. As a comparison, at present Australia's net external debt (excluding equity) at the current rate of exchange (A\$1 = US\$0.76) stands as US\$95 bl compared to that of Mexico's US\$106 bl and Brazil's US\$116 bl. However "sensational" these figures are they must be appraised against the following considerations.

As Table 1 makes clear the capital account reflects the developments in the current account. Equally as Table 2 also shows, the current account is a reflection of the savings and investment decisions of the private sector given the budget position of the government. The Commonwealth government budget in Australia has exhibited a surplus since fiscal 1987/88 and the originally planned surplus for fiscal 1990/91 was A\$8.10 bl (Chart 8). The overall surplus position since fiscal 1986/87 does not change even after allowing for the borrowing requirements of the state and local governments. This fiscal policy stance was contributory to stabilising or diminishing the size of the current account deficit. The developing situation, however, during fiscal 1990/91 is not encouraging and the surplus is likely to fall substantially possibly to A\$6 bl or even less. One reason for this is the tax cuts negotiated as a part of the wage Accord Mark VI which is examined in detail in a separate section in this article. Other reasons leading to a smaller surplus include higher expenditures on unemployment benefits, the cost of supporting wool prices and unsuccessful bids to sell public sector enterprises. Furthermore, the overall surplus resulting from the aggregation of the borrowing requirements of all state, local and public sector enterprises with the Commonwealth government surplus is also likely to fall during 1990/91. These developments signify that the contribution of the state surplus to the current account deficit reduction may diminish or at best stay neutral during 1990/91. It would now follow that the developments in the current account, at least since 1986/87, have reflected primarily the savings-investment decisions of the private sector only. As Chart 9 indicates throughout the 1980s investment expenditures accounted for a

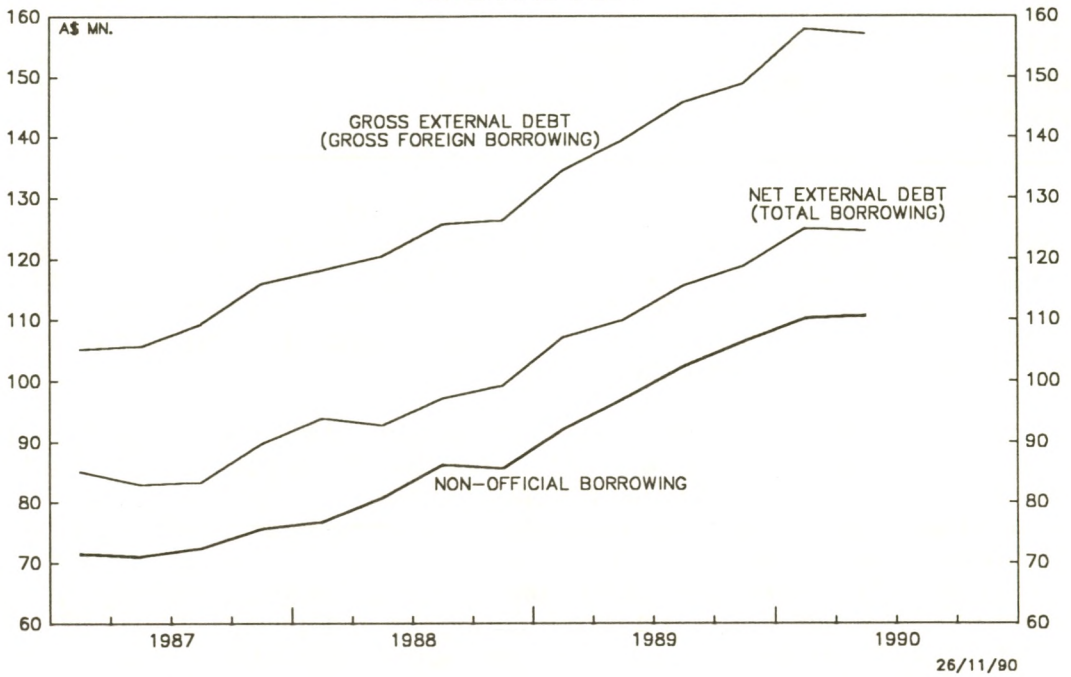
AUSTRALIA: CHART 5
REAL PRIVATE INVESTMENT AND DWELLING APPROVALS



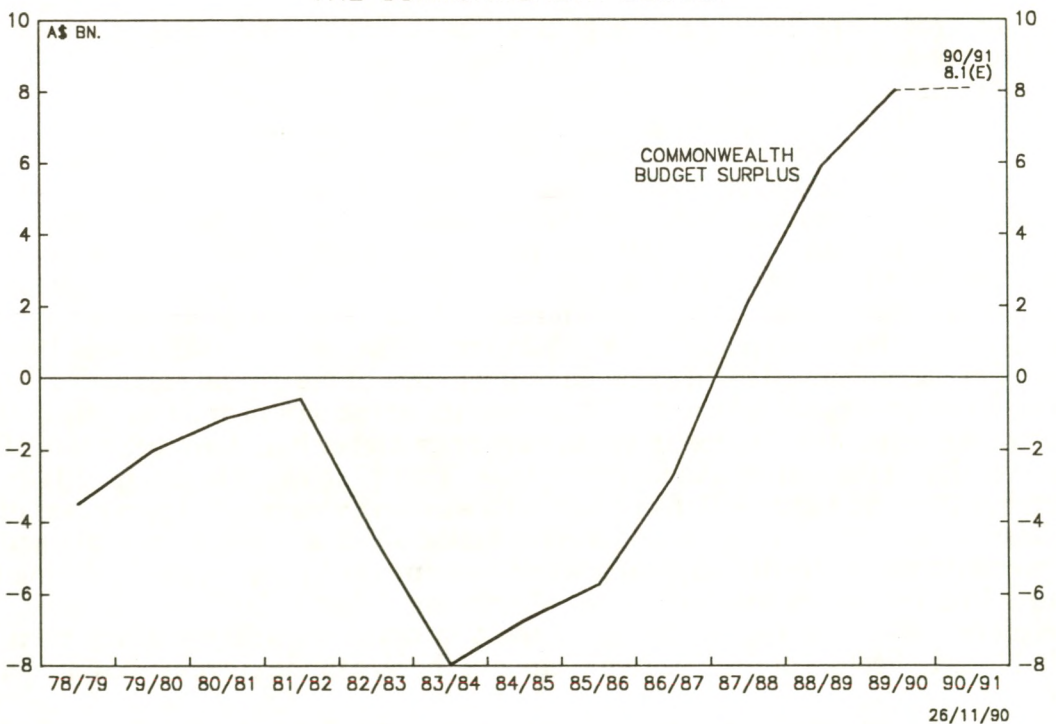
AUSTRALIA: CHART 6
CAPITAL ACCOUNT BALANCE



AUSTRALIA: CHART 7
EXTERNAL DEBT



AUSTRALIA: CHART 8
THE COMMONWEALTH BUDGET



substantially larger percentage of GDP than household savings. Indeed the average household savings ratio (Chart 10) has declined between 1980/81 and 1987/88. Firms, too, save, but even if their activities were taken into account there would have still been a constant and widening gap between private gross savings and private gross capital expenditure since the mid 1980s. This does imply that the additional resources necessary for investment would have had to be drawn from overseas, either in terms of direct or portfolio investment into Australia or by borrowing.

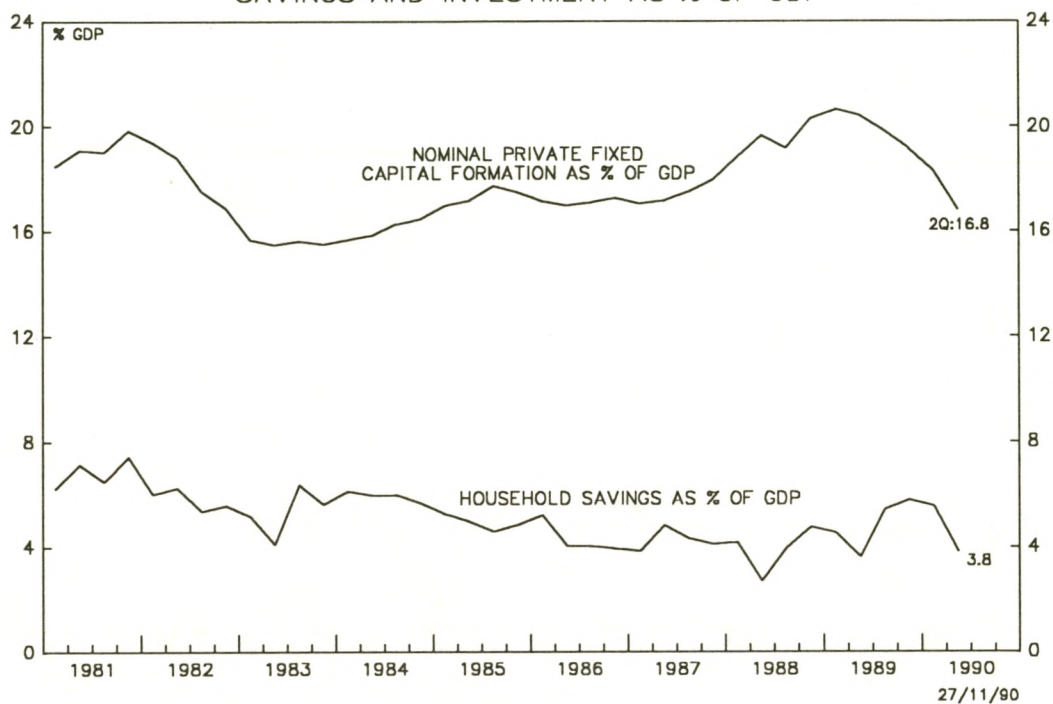
This particular point has led to a further confusion in the public debate over the composition of imports. The excess of domestic investment over domestic savings does not imply the importation of capital goods financed by overseas loans or equity participation. Indeed it is theoretically possible that all imports are consumer goods and that foreign investment plus the resources available from domestic savings are used to buy Australian made capital goods.

Given these considerations, the use of monetary policy to control the size of the current account deficit could prove counterproductive. Higher interest rates designed to curb domestic activities, and hence reduce imports, could encourage additional capital inflows, particularly at junctures when the domestic demand for the relatively limited amount of savings was pushing interest rates up anyway. For example, in Chart 5 fixed capital formation accelerated from the second quarter of 1983 to the first quarter of 1984 whilst interest rates rose during the first quarter of 1984 (Chart 2). Similarly, the second phase of rapid investment growth of the 1980s, from the second quarter of 1987 to the second quarter of 1988, was also accompanied by higher interest rates in the latter quarter. In both periods the surplus in the capital balance tended to increase.

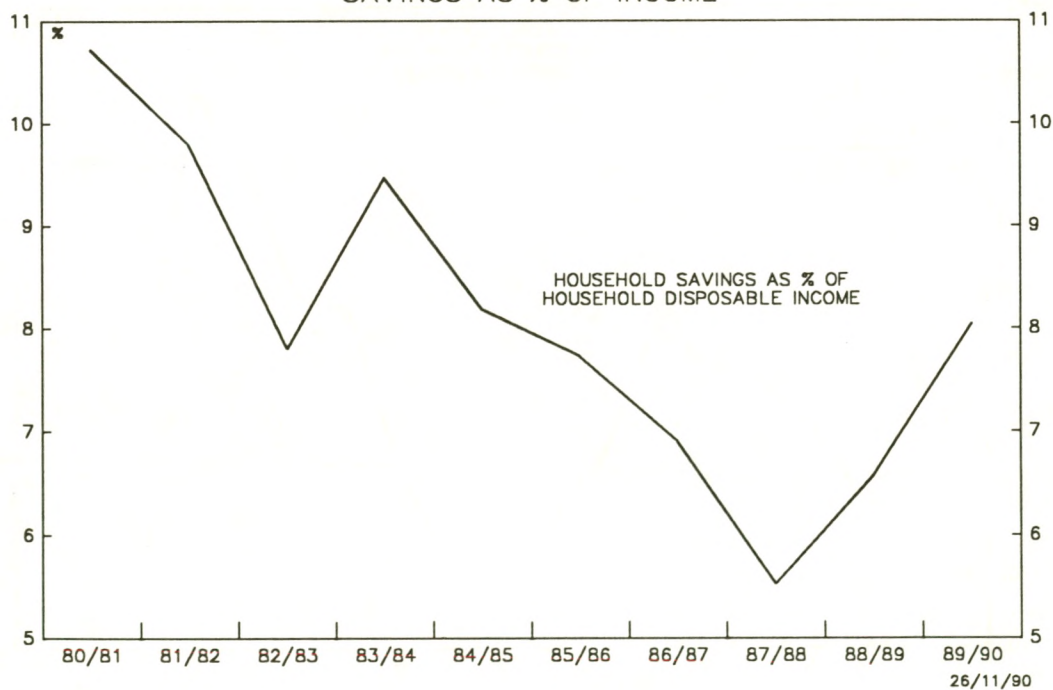
In a regime of floating exchange rates the deficit in the current account would lead to pressures on the currency. If, in the presence of such growing deficit the exchange rate appreciated, as it did happen in Australia during 1988, then it could be concluded, all other things being equal, that the current account deficit was too small! In other words the demand in the international capital markets for Australian dollar denominated bonds and equities exceeded their supply, the latter being generated by the deficit in the current account. Although nominal exchange rates are driven by a variety of factors such as international interest and inflation differentials as well as expectations, the evidence on the indirect influence of the capital account on the Australian dollar exchange rate over a number of years is at best ambiguous. As Chart 11 shows in at least two periods, mid 1982 to mid 1984 and mid 1989 to mid 1990 the rate of exchange moved in the same direction to that of the capital balance. Furthermore, it can be argued that for specific periods the appreciation or depreciation of the Australian versus the US dollar would have been higher had it not been for official intervention in the market. So for example as Chart 12 shows between June 1989 and October 1990 the Reserve Bank of Australia was, on average, a net purchaser of US dollars (i.e. a seller of Australian dollars) an action which may well have contained any appreciation or exacerbated depreciation movements in the currency during that time. In other words the float of the Australian dollar is far from "clean". This therefore makes the use of the movements in nominal exchange rates even less reliable as indicators of the true significance of the size of the current account deficit.

These considerations should not detract, however, from the fact that in the long run, given the reliance of Australia on commodities exports, the real as opposed to the

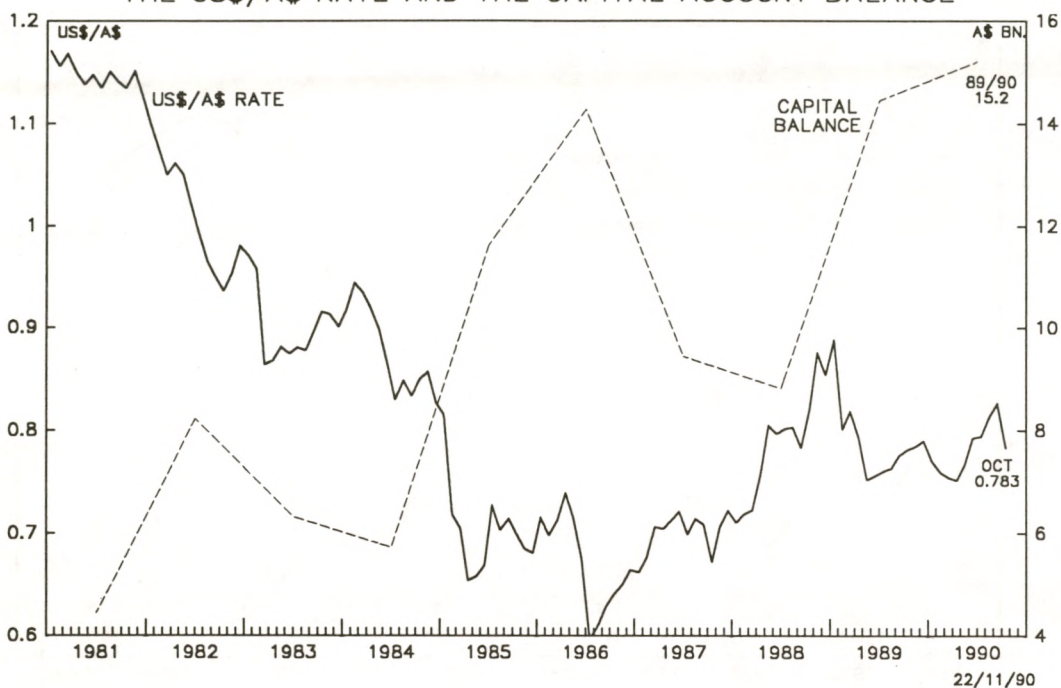
AUSTRALIA: CHART 9
SAVINGS AND INVESTMENT AS % OF GDP



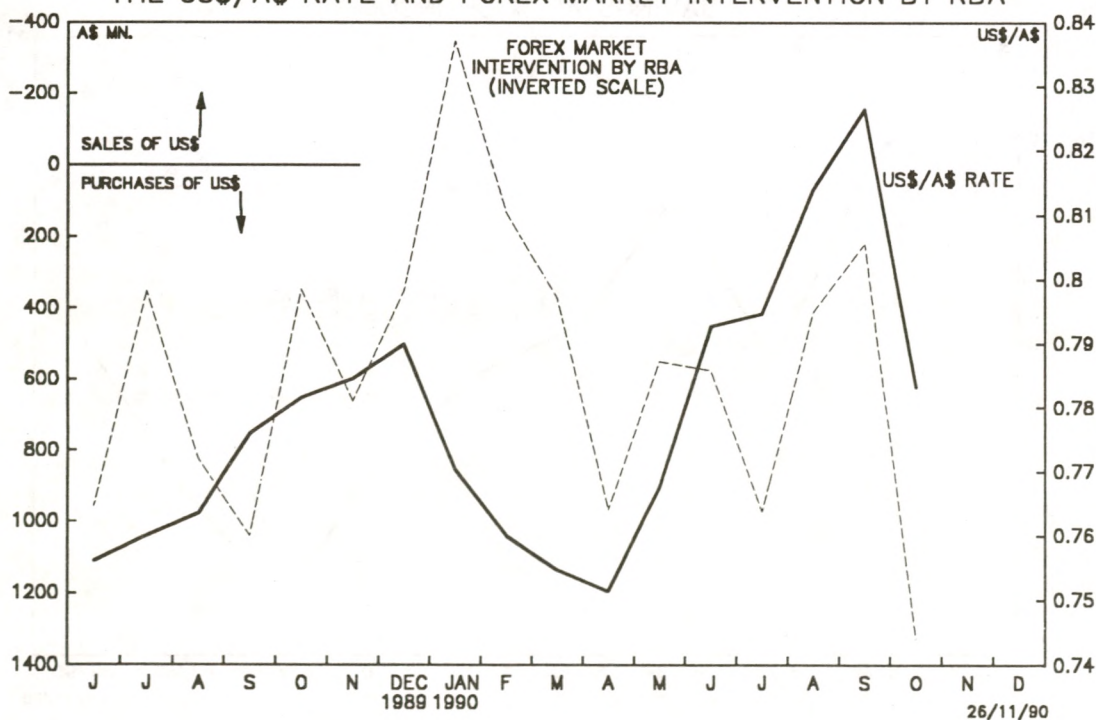
AUSTRALIA: CHART 10
SAVINGS AS % OF INCOME



AUSTRALIA: CHART 11
THE US\$/A\$ RATE AND THE CAPITAL ACCOUNT BALANCE



AUSTRALIA: CHART 12
THE US\$/A\$ RATE AND FOREX MARKET INTERVENTION BY RBA



run, given the reliance of Australia on commodities exports, the real as opposed to the nominal exchange rate does follow the movements in commodity prices and by extension movements in the terms of trade. As Chart 13 shows when commodity prices weakened during 1985-86 the inflation adjusted and trade weighted exchange rate index fell. Similarly the broad recovery in the commodity prices from mid 1986 to mid 1988 was also followed by a rising forex index.

There is a proposition which merits a mention here, namely, that movements in the exchange rate could be driven primarily through developments in the capital account, and that changes in the capital account could also lead to movements in the current account. Consider Table 3 which draws together the sectoral balance analysis that has been used so far. Suppose that an increase in investment in Australia caused by falling domestic interest rates was financed by borrowing overseas. The inflow of capital will increase the surplus in the capital account and it will also increase the domestic money stock unless the Reserve Bank of Australia sterilised the inflow by, for example, an offsetting sale of government bonds. Under a flexible exchange rate system the appreciation of the rate will help create a current account deficit to match the developing surplus in the capital account. Taking a hypothetical extreme case, a country could export or import no goods or services at all, but only borrow overseas. Since balance of payments balance, under flexible exchange rates the rate would appreciate until imports were stimulated enough to cause a deficit in the trade account so that the real transference of capital could take place.

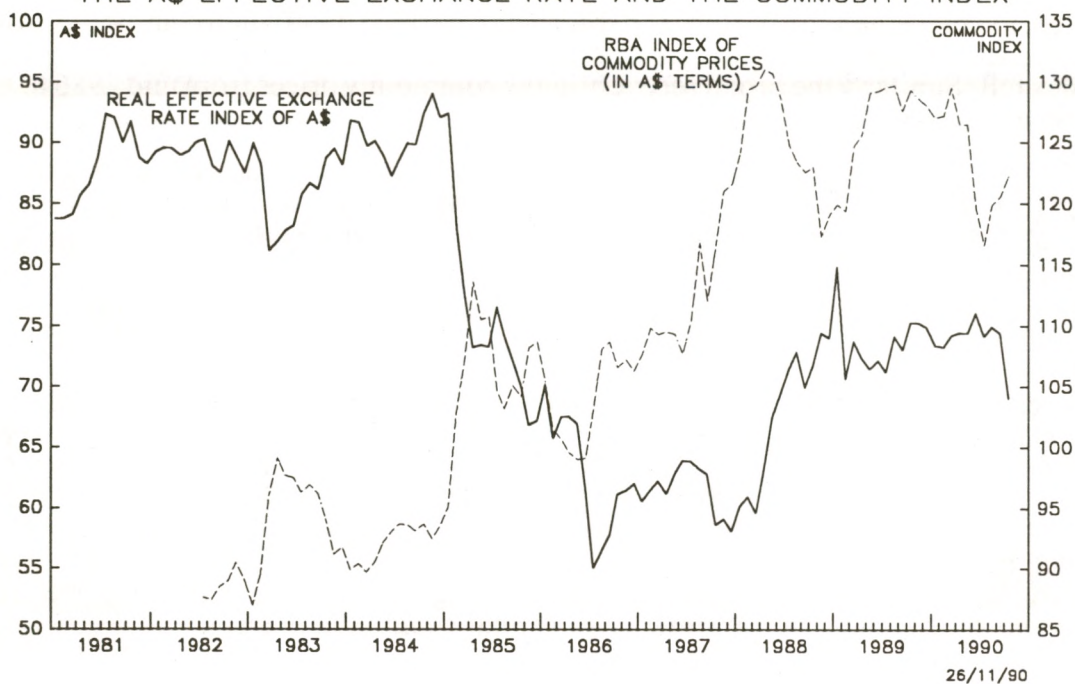
The relevance of this hypothetical example to Australia lies in that it can illustrate and explain the proposition that the periodic strength of the Australian dollar (for example during the first half of 1990) could have been initially capital account driven despite falling domestic interest rates.

To summarise:

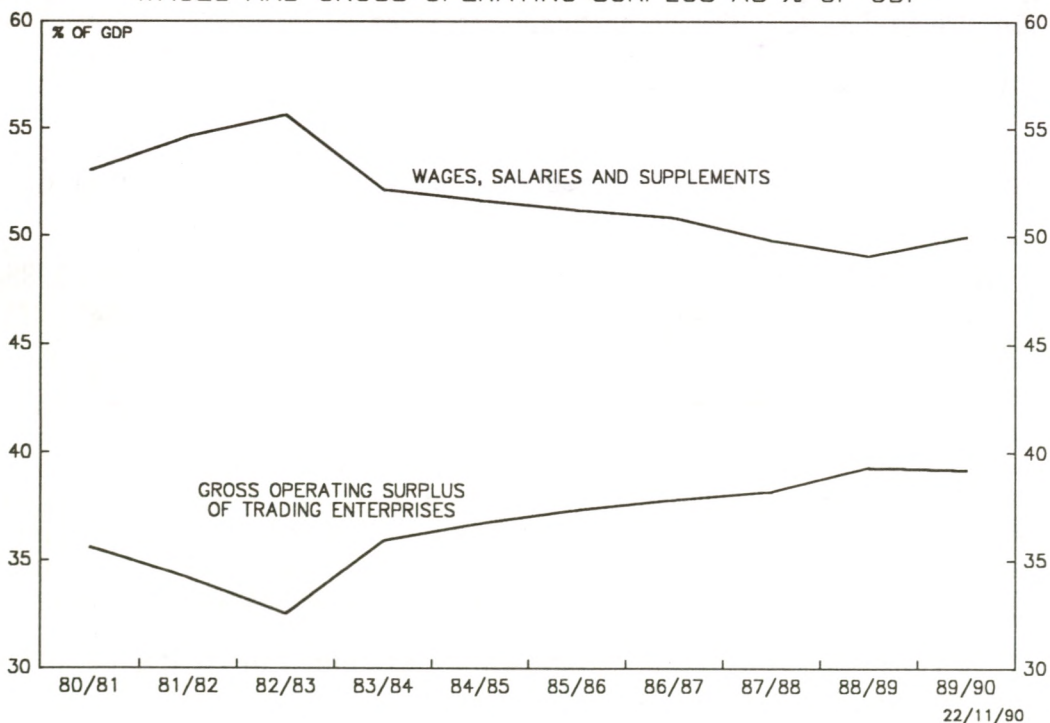
1. The use of monetary policy to influence the size of the current account deficit (and by inference the size of external debt of the country) is potentially misguided and has led to stop-go business cycles.
2. With the public sector entering a period of budget surpluses since 1987/88, the main factors influencing the current account deficit are to be found in the savings and investment decisions of the private sector.
3. The short run variations in the nominal exchange rate of the Australian dollar are also related to the behaviour of the current and capital balances.
4. The significance of all these interrelated factors to the current 1989-90 recession lies in avoiding a repetition of past policy errors once the economy has troughed, and appraising the impact of the current interest rate policy on the activities of a number of sectors in the economy in the context of the framework developed so far.

The issues raised in the last point will be examined in greater detail in the concluding section of this article.

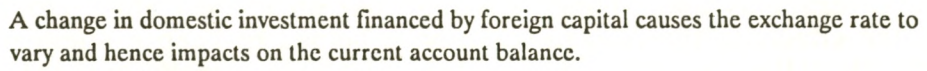
AUSTRALIA: CHART 13
THE A\$ EFFECTIVE EXCHANGE RATE AND THE COMMODITY INDEX



AUSTRALIA: CHART 14
WAGES AND GROSS OPERATING SURPLUS AS % OF GDP



CAPITAL ACCOUNT AND THE EXCHANGE RATE



The Accord

Since 1983 the Australian Council of Trade Unions (ACTU) and successive Labour governments have cooperated over the centralisation of wage fixing. In the last quarter of 1990 the Mark VI Accord was negotiated and concluded. Over the years, however, the once rigid system of establishing annual wage increases has been modified and is now rapidly changing. Indeed the detractors of the Accord would be pleased to see the current rapid devolution towards local or firm-specific wage negotiations which would reflect more accurately the state of individual labour markets and labour productivity.

The overall impact of the Accord on wages has been to depress their real levels. For example, from 1985 to the first half of 1989 the average annual increase of non-farm unit labour costs was -1.2%. As a consequence of this restraint, labour income as a percentage of GDP has declined whilst that of profits increased from 1982/83 until 1988/89 (Chart 14).

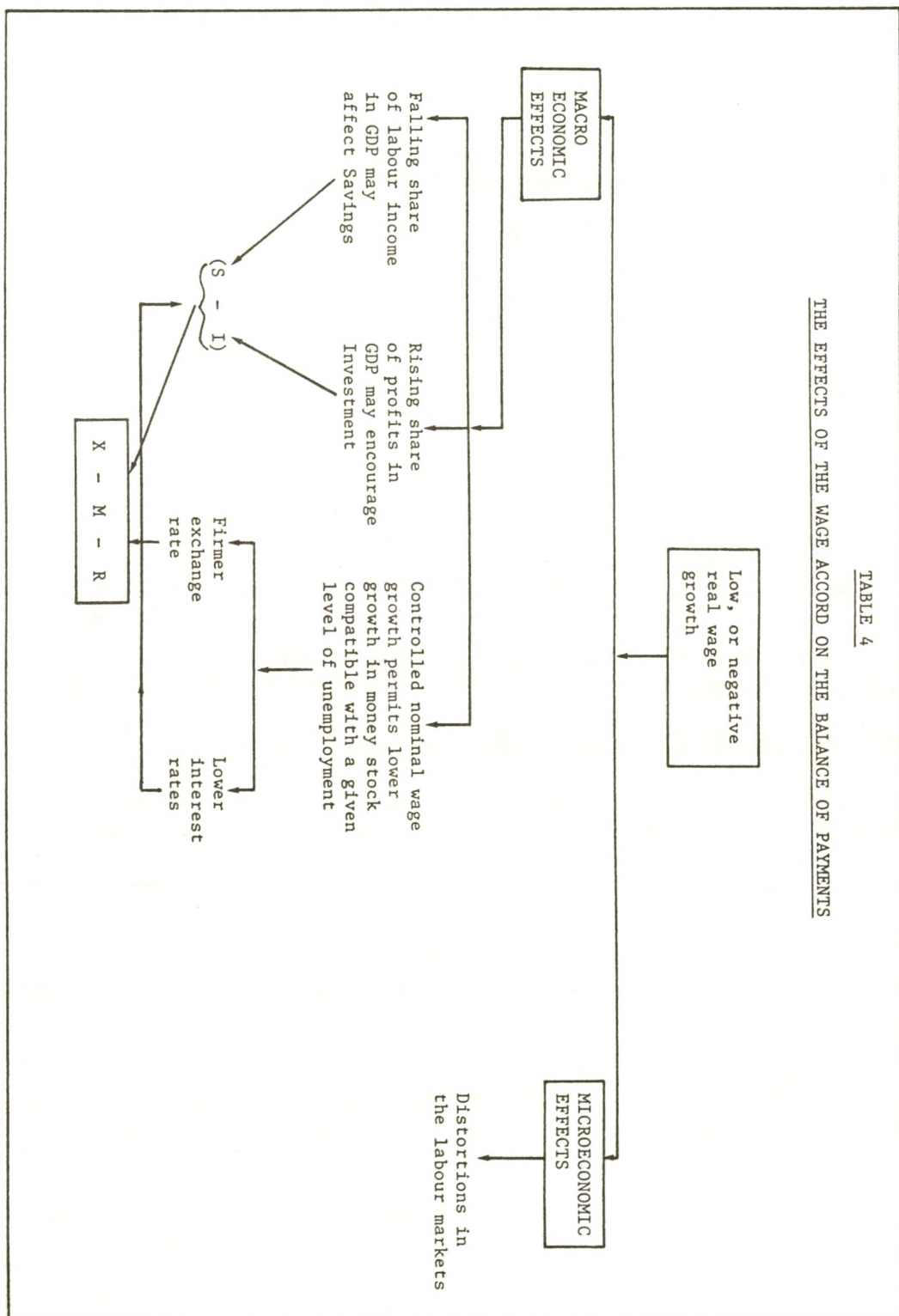
The containment of nominal wage increases meant that employment increased more than it would have otherwise done, and equivalently, unemployment stayed at lower levels. Furthermore, lower nominal wage rises allowed for a slower growth in the stock of money consistent with any given level of employment, assuming no other constraints such as maintaining limits on foreign exchange movements. It has been estimated that over 1983-89 the successive Accords reduced the impact of nominal wage changes on the price level by about three percentage points per year and reduced real wages by 10%. Chart 15 shows that since 1984, when the Accord became effective, there has been, in general, a decline in the growth of real wages.

As Table 4, however, shows the lower inflation and higher employment levels were achieved at a cost. The declining share of labour income and the rising share of profits did influence the savings-investment decision. Household saving ratios have declined between 1980 and 1987 (see Chart 10), whilst the rising share of profits in the GDP encouraged investment. As Tables 2 and 3 have shown the widening gap between Investments and Savings was reflected on the current account deficit. Equally the effects of the Accord could have helped to keep simultaneously the exchange rate of the Australian dollar higher and interest rates lower than they would have otherwise been. These considerations leave aside the potential microeconomic distortions introduced in the labour market, such as reduction in mobility, decoupling of wage increases from productivity etc.

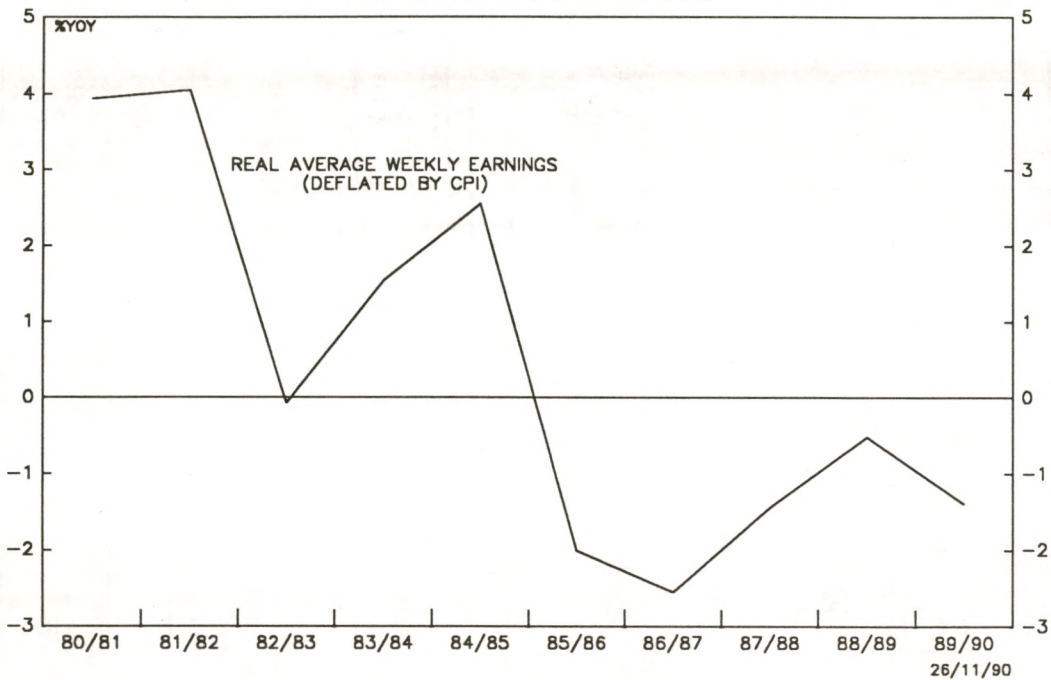
The 1990 Mark VI Accord is a further variation on the previous themes insofar as the government promised to give income tax cuts in partial substitution for wage increases. Unless the government acts to raise revenue or cut expenditures somewhere else, this particular wage Accord represents a considerable fiscal easing. There is growing evidence that this may well be the case for fiscal 1990/91. It would now appear that the government is willing to forego improvements in the current account deficit, which would have followed the rising surplus in its budget, for potentially lower inflation. This may have a negative impact on the already weakened money and capital markets, particularly in the context of the promises by the authorities that they

TABLE 4

THE EFFECTS OF THE WAGE ACCORD ON THE BALANCE OF PAYMENTS



AUSTRALIA: CHART 15
CHANGES IN REAL WAGES



however, is that it continues to devolve productivity and profitability related wage deals to enterprise-level.

Interest Rates, the Economy and the External Debt

The authorities have pinned their hopes for a relatively quick recovery on the 500 basis point fall of cash rates during the first ten months of 1990 plus promises of further easing of the credit and liquidity squeeze. A comparison of Charts 2 and 5 will readily indicate that the peaking of overdraft interest rates during the second quarter in 1982, the last quarter of 1985 and the last quarter of 1989 were followed by sharp declines in the growth rates of investment and, in the first two cases, of dwelling approvals. Equally the troughing of the overdraft rates in the fourth quarter of 1983 and first quarter of 1988 was accompanied by sharp rises in housing activities but less so in investment.

The first cuckoo in the hoped-for spring for the Australian economy in 1991 is likely to be an upturn in housing. As Chart 5 shows there are already some signs of that during the third quarter of 1990. The housing and construction sector would then help to kick-start investment in manufacturing and thus cushion the rise in unemployment.

Much has been made in the public discussion over the current recession of the role of the banks in the transmission mechanism from falling short term money rates to lower overdraft and mortgages rates. Notwithstanding the accusations of "usurious banks" refusing to pass on to their customers the benefits of falling rates, the deregulation of Australia's banking system since 1980 may have created conditions which reduced rather than increased the flexibility by which the system responded to

changes in the credit environment. For example, the net interest rate margins of Australian banks declined from 1980 to 1985/86 but then rose again despite the fact that in 1985 foreign banks were permitted to enter the market and hence raised the level of competition. One explanation for this development was that foreign banks competed with local banks in the wholesale markets only, thus cushioning the impact of their entry. Another explanation, which is highly relevant to the present situation, was that deregulation forced banks to accept lower quality loans in their portfolios and hence raised the risk premiums in the rates charged. At the present time there is both hard and anecdotal evidence that Australian banks are being faced with exceptionally large non-performing loans. The agricultural sector in particular has been hit by the twin blows of falling wheat and wool prices, and a relatively strong Australian dollar. Hence easing of credit conditions may well be irrelevant when borrowers do not, or cannot, borrow and banks may not want to lend to the type of customers who would be attracted by the lower rates in the first place. Furthermore, in the case of non-performing loans, interest reductions could well be an irrelevant consideration.

Given these potentially inherent inelasticities in the responses of both borrowers and lenders, the temptation facing the authorities to go for even more dramatic reductions in interest rates would be understandable but not justifiable. There are three reasons for this. Firstly, too fast an easing of the credit squeeze will be reflected on the current account deficit particularly if investment is stimulated. Secondly, the concentration of the policy discussion on interest rates detracts from some more fundamental issues which demand attention. For example, there are well known distorting factors in the income tax and pension system which discourage private saving and artificially encourage investment. The tax treatment of nominal interest rates is a case in point.

Finally if monetary policy is to be defocused from the current account deficit then a rational appraisal of the costs and benefits of the external debt is also necessary. The claim that since the capital balance surplus, and therefore the external foreign debt, represents the outcome of primarily private as opposed to state savings and investment decisions does not necessarily justify an attitude of complacency. There are at least three reasons why the external debt could have future negative consequences for the Australian economy.

The first is that if the relative decline of savings in relation to investment is partially caused by income tax and other institutional distortions, then the resulting surplus in the capital account is not necessarily socially optimal as it is also partially caused by these distortions. Secondly, the current account deficit will be reflecting in the future the interest and other service costs of the external debt. If the foreign loans were contracted in expectation of high returns, then the increase in the capital stock resulting from that investment may generate enough returns to pay for itself. As some of the early 1980s borrowing was undertaken on the basis of higher resource prices, then some of these expected returns may not materialise. The fact that most of the debt is private rather than public is not an automatic guarantee of higher returns or of its productive employment and use. The third, and final, consideration concerns the future impact on the financial system of changes in expectations in the international markets towards the implicit risk premium in the exchange rate for the Australian

dollar. Given that in the long run the rate of exchange is affected by movements in the terms of trade, then any significant or rapid deterioration in these terms could lead to sudden and sustained pressures for correction by large adjustments in the exchange rate.

FORECAST: The trough of the Australian economy is likely to be signalled by a revival in the housing and construction sectors. The substantial fall in interest rates will be having an impact by the second or third quarter of 1991 leading also to some upturn in fixed investment. The main concern, however, is that there appears to be no major shift in the attitude of the authorities towards the uses of monetary policy and towards the current account deficit. Also the developments affecting the size of the Commonwealth budget surplus are disturbing since they imply that the authorities are now paying more attention to the control of inflation via incomes and wages policies than to the deficit in the current account. The danger here is that the potential worsening of the current account deficit could spark off yet another deflationary reaction by the authorities. The rapid changes in economic policy priorities may not augur well for the consistency of application of monetary and fiscal policies. At one extreme there is fear that the seeds of the third stop-go cycle since 1982 have already been sown and that history is about to repeat itself. A more sanguine view will point out at the growing public realisation that very fundamental reforms will be necessary both at the micro and at the macro policy levels if Australia's productive potential is to be realised and the errors of the past avoided.

HONG KONG

THE CHANGING STRUCTURE AND COMPETITIVENESS OF THE HONG KONG ECONOMY.

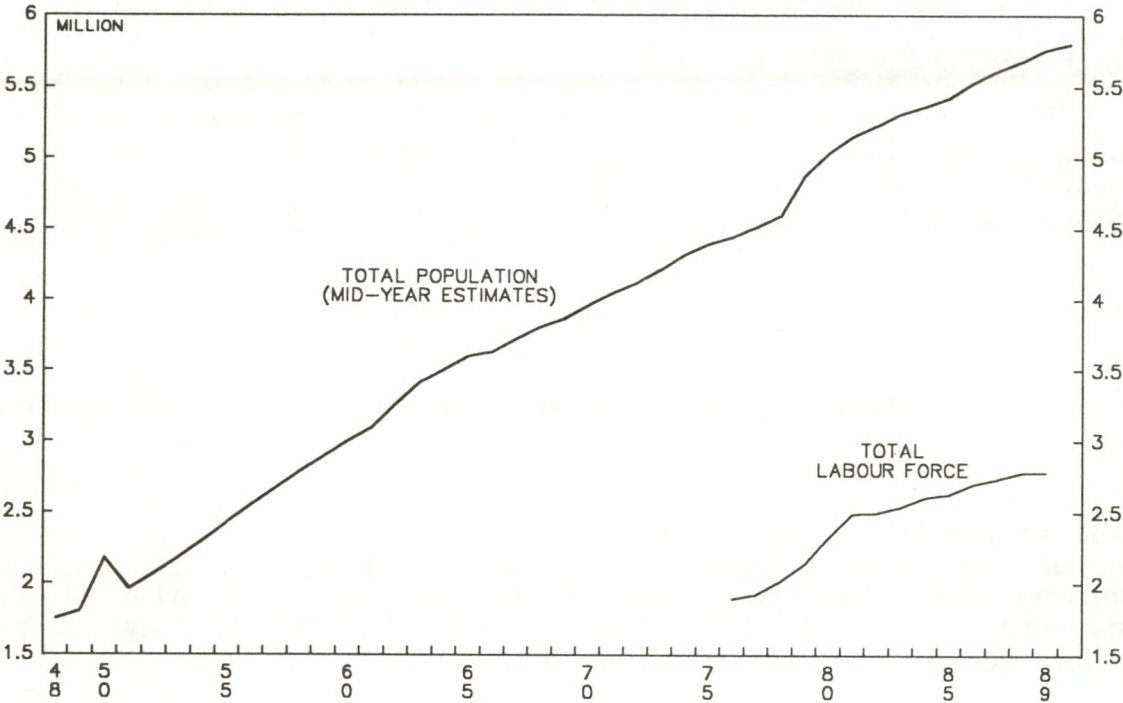
Numerous factors have affected the structure and competitiveness of Hong Kong's economy over the past decade or so. Some of these factors are "real" while some maybe classified as "nominal". In general terms the "real" factors include the growth and improvement in skills of the labour force, which may in turn be divided into such factors as the rate of immigration into and emigration from Hong Kong, the natural growth rate of the population, the age structure of the population, the labour force participation ratio, and finally the increase in the level of skills or productivity of the labour force as a whole. The "nominal" factors include those factors affecting the real exchange rate, i.e. movements of the nominal exchange rate adjusted for the inflation rate in Hong Kong relative to the inflation rates of its main trading partners.

As shown in Chart 1 the total population of Hong Kong has grown steadily since 1951 from just below 2 million persons to an estimated 5.8 million persons in 1990. The growth of the total population was made up of a natural growth rate of between 1% and 2% per annum for most of the period together with a varying rate of immigration, particularly from mainland China. A noticeable feature of Chart 1 is the surge in population growth during the early 1960s (1962-1964), and the large increase in the labour force and population from 1978 to 1981.

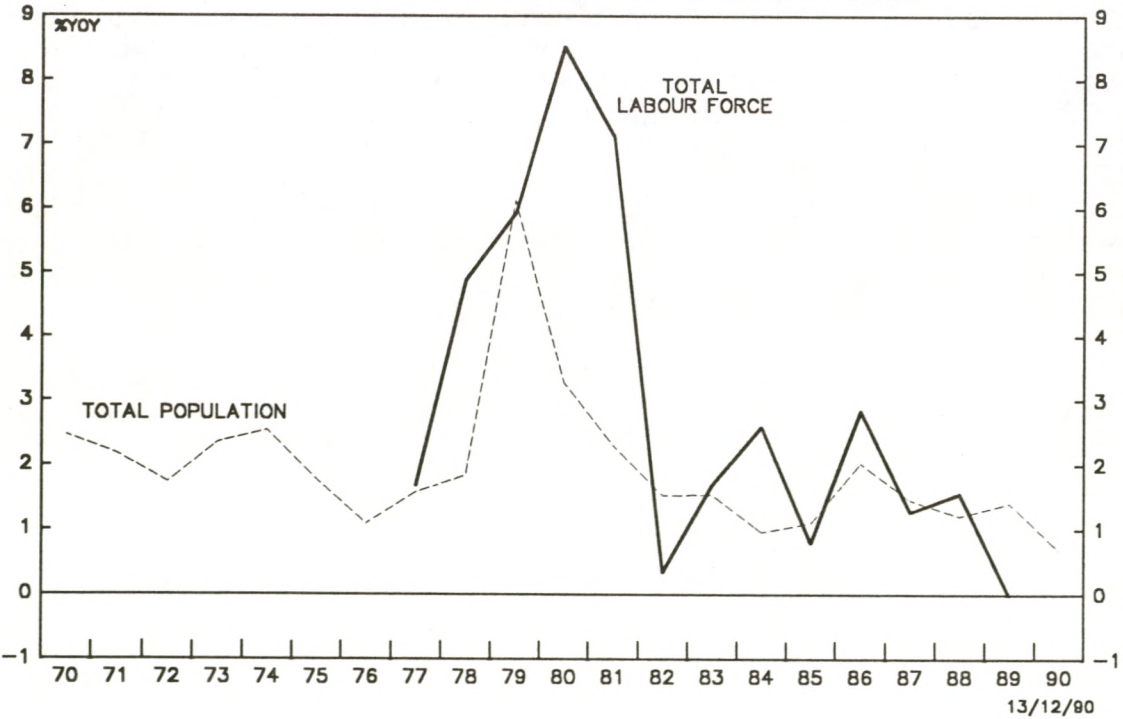
Chart 2 shows the sharp increase in the growth of the total labour force in 1978-1980 as well as the parallel increase in the total population around the same period. An important reason for the fluctuation in the rate of growth of the labour force was the long-standing policy of the Hong Kong Government known as the *Touch Base Policy*, whereby an immigrant arriving from China could, if he or she reached the urban areas, register as a Hong Kong resident. The idea of this policy was to prevent the growth of an underground work force of illegal immigrants, and to legitimize the presence of the large number of new immigrants. A notable feature of the 1960s and 1970s was that whenever the Hong Kong economy experienced a boom, the rate of immigration from mainland China would increase. Thus the growth of Hong Kong's GDP in the 1960s and 1970s was made up, in significant degree, by the "horizontal" expansion of the labour force, i.e. the arrival of large numbers of relatively unskilled workers, rather than by the "vertical" upgrading of skills of resident employers and employees. Between 1966 and 1981, for example, aggregate real GDP grew at 8.6% p.a., but per capita real GDP only grew at 6.1% p.a.

Chart 3 shows the rate of growth of wages relative to consumer prices. During the upswing of 1975-1979 real wages grew rapidly, attracting new immigrants from China, and as a result the labour force grew by 6% in 1979, by 8.5% in 1980 and

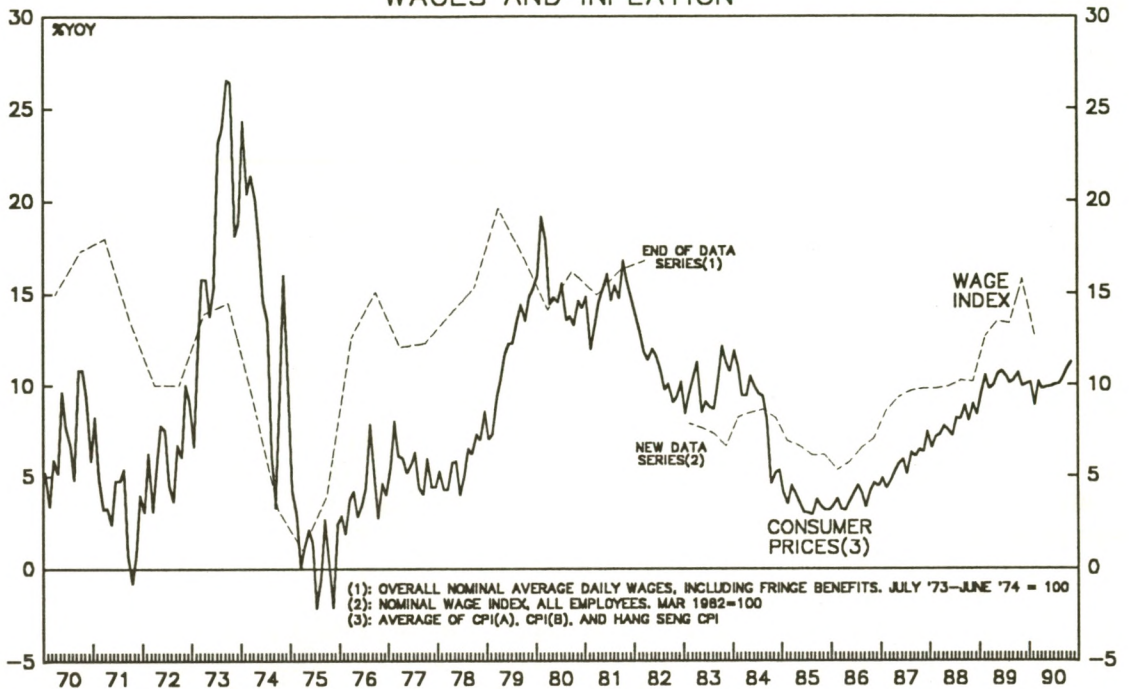
HONG KONG: CHART 1
POPULATION AND LABOUR FORCE



HONG KONG: CHART 2
GROWTH OF POPULATION AND LABOUR FORCE

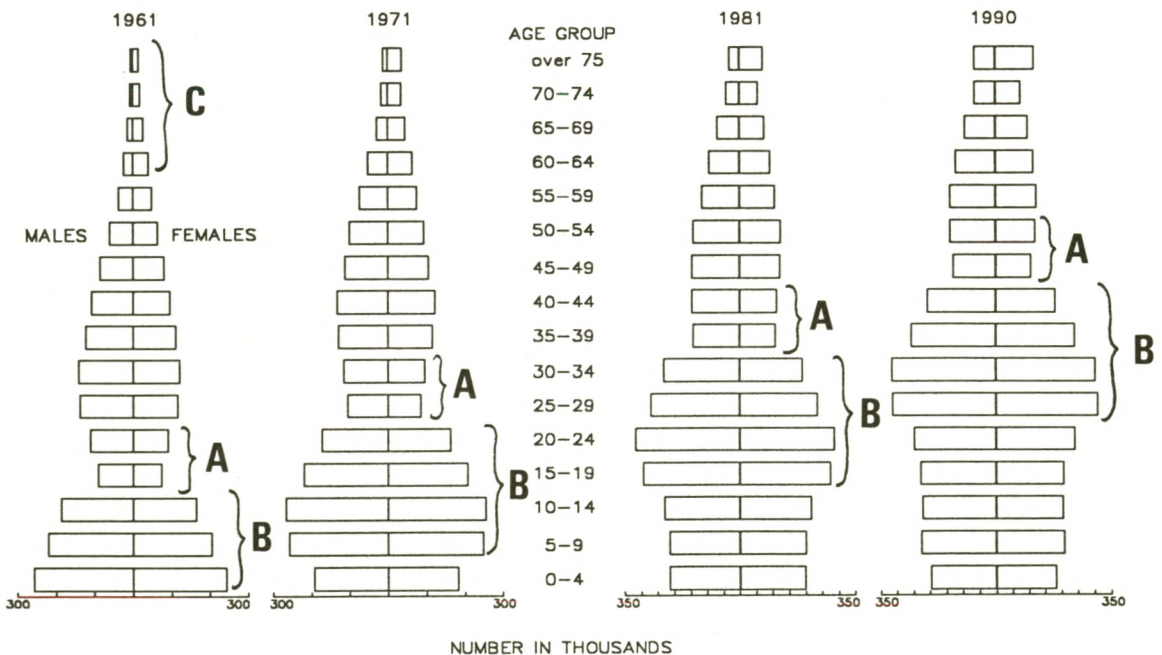


HONG KONG: CHART 3
WAGES AND INFLATION



SOURCE: HONG KONG MONTHLY DIGEST OF STATISTICS, CENSUS AND STATISTICS DEPARTMENT, H.K.

HONG KONG: CHART 4
THE AGEING OF THE POPULATION



continued growing into 1981 by 7.2%. These enormous growth rates led to the emergence of squatter villages on the edges of Hong Kong's urban areas, as well as along the sea-shore. From time to time there were, inevitably, fires or land slides due to heavy rain, and unfortunately lives were lost. Those who lost their homes in such disasters were considered to be a burden on Hong Kong's limited social welfare system. It was therefore decided in October 1980 to terminate the Touch Base Policy. From that time onwards every Hong Kong resident over the age of 15 was required to carry an Identity Card and employers were prohibited from employing individuals who did not carry such cards. As shown in Chart 3 the early years of the 1980s were a period during which real wages did not rise very much, partly due to the world-wide economic downturn, and partly due to the depressed state of domestic demand in Hong Kong in the period up to the initialling of the Sino-British Joint Declaration on the Future of Hong Kong in September 1984. Moreover, because the Hong Kong dollar was very strong in line with the US dollar in 1984-1985, Hong Kong's export industries suffered a significant set-back during 1985 (Chart 8). However, once the US dollar started to depreciate in late 1985, Hong Kong's exports began to recover and the years 1987, 1988 and 1989 saw a renewed boom in the Hong Kong economy. Once again wages rose strongly in real terms, significantly more rapidly than the rise in consumer prices.

A major difference between the 1987-1989 boom and previous upswings was that there was no longer any possibility of a rapid rate of immigration into Hong Kong. On the contrary, there was now a significant emigration of skilled people looking for new opportunities in the US, Canada and Australia ahead of China's resumption of sovereignty over Hong Kong in 1997. The 1987-1989 boom was therefore the first real upswing that Hong Kong had experienced in the post-War years during which it was unable to draw on a relatively free supply of labour from China. This has led to a marked change in the structure and composition of the labour force.

As Chart 4 shows, the age structure of Hong Kong's population in 1961 was characterised by three distinguishing features: (A) the small number of people in the 15-24 age group (due to the low birth rate during the Second World War), (B) the large numbers of children born in the 15-20 years after 1945, and (C) the small number of people over the age of 60. Over the three subsequent decades the first two characteristics have persisted, and are highlighted in the chart. With the rise in the standard of living longevity has increased, and there are now substantially more people in the age groups over 60, especially women over 75. Most of the immigrants from the mainland during the 1960s and 1970s were in their teens, twenties or early 30s, and have therefore added to the younger age groups in the population. In terms of their economic contribution the immigrants tended to enter the manufacturing or construction sectors, or join the ranks of those working in cottage industries or as hawkers with street-stalls. Traditionally, therefore, whenever there was a boom in Hong Kong, the labour force tended to grow mainly by additions at the lower end i.e. from low-skilled immigrants.

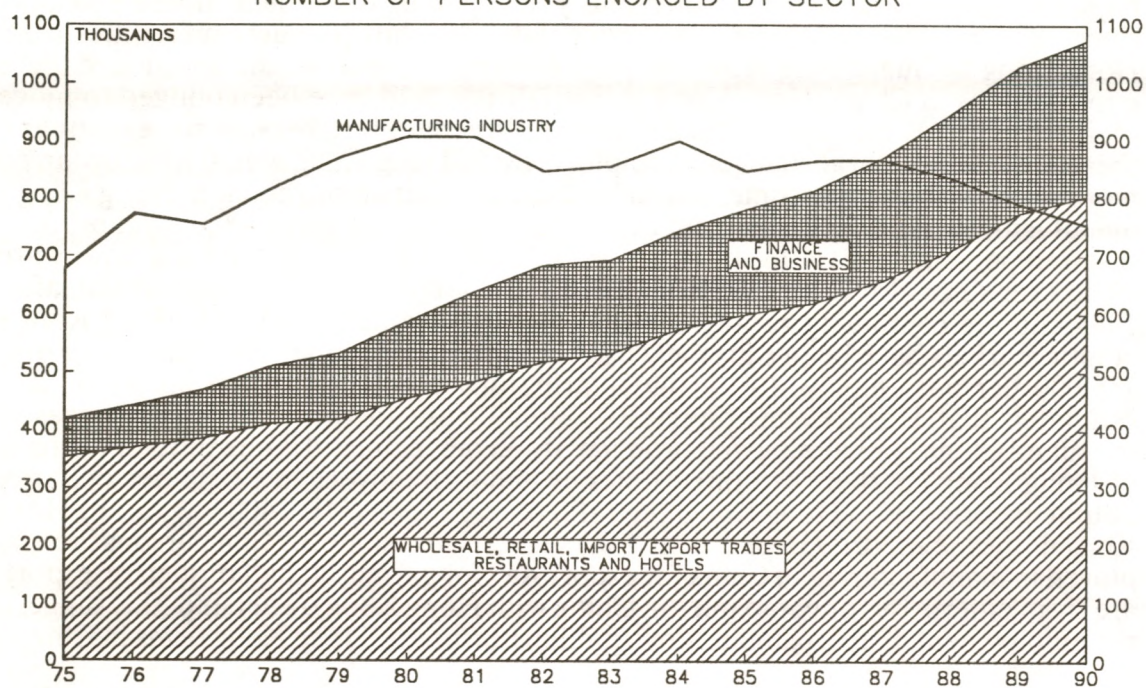
Since 1980, however, the virtual prohibition on new immigration from the mainland has meant that Hong Kong's response to tight labour market conditions has had to change. Instead of expanding "horizontally" as in the past, the economy can now

only respond "vertically" by raising its own skill-levels and productivity by moving into higher value-added activities. Fortunately the opening up of the Chinese economy since 1978 has enabled Hong Kong industrialists to shift production facilities from Hong Kong to Guangdong Province, or elsewhere in China. In the absence of these opportunities in China, Hong Kong industrialists would have been obliged to move their activities to other parts of Asia, which would generally have been more costly and therefore the structural changes in employment in Hong Kong would have occurred more slowly. The net outcome, shown in Chart 5, is that employment in Hong Kong's manufacturing industry peaked out as early as 1980-81 at around 900,000 employees, rose temporarily in 1984 to the same level, but has generally been on a downward trend ever since. Moreover, as reflected in the sharp decline in unemployment after 1985 and the continuing very low levels of unemployment (Chart 6), Hong Kong's labour markets have been extremely tight since 1987. By June 1990 there were only 755,000 persons employed in manufacturing in Hong Kong. As a corollary, it is estimated that Hong Kong companies employ close to two million employees in mainland China. (Assuming that productivity on the mainland is one third of the level of Hong Kong i.e. there are three times as many employees in China per dollar of output exported as in Hong Kong, the ratio of re-exports (HK\$ 400 bn p.a.) to Hong Kong domestic exports (HK\$ 230 bn. p.a.) suggests that some 3.94mn persons are employed in manufacturing in China for export via Hong Kong. If half of such re-exports are from enterprises or companies in China with Hong Kong ownership, this suggests net employment of approximately two million persons by Hong Kong firms in China.)

Along with the reduction in persons employed in manufacturing in Hong Kong there has been a corresponding increase in employment in financial and other business services, in the wholesale, retail and restaurant and hotel businesses. Hong Kong is therefore becoming less of a manufacturing centre, and is resuming its traditional role as an entrepot for transshipment of goods to and from mainland China. At the same time it is becoming a service centre, providing financial, legal and other services both to Hong Kong residents and to the manufacturing hinterland of Guangdong province. In short, Hong Kong's, product mix is altering. This is partly because of policy changes such as the abandonment of the *Touch Base Policy* in Hong Kong itself, and partly because of the economic development of China over the past decade of economic reform. Without the change in the product mix Hong Kong businesses would find it hard to remain competitive. However, the change in product mix is bringing changes in relative prices which are themselves distorting some of the standard measures of competitiveness.

Turning to the nominal factors affecting Hong Kong's competitiveness in the period since 1983, these have been dominated by (a) the movement in the US dollar in relation to other currencies, and (b) the domestic inflation rate in Hong Kong -- though this requires careful interpretation. Since October 1983 the Hong Kong currency has been tied to the US dollar with a fixed parity of 7.80 Hong Kong dollars per one US dollar for banknotes issued or redeemed by commercial banks in Hong Kong, and a free market rate for deposits (i.e. credit money) or banknotes held by the non-bank public. Since deposits can be converted to currency at par at any time (and

HONG KONG: CHART 5
NUMBER OF PERSONS ENGAGED BY SECTOR



HONG KONG: CHART 6
UNEMPLOYMENT RATE



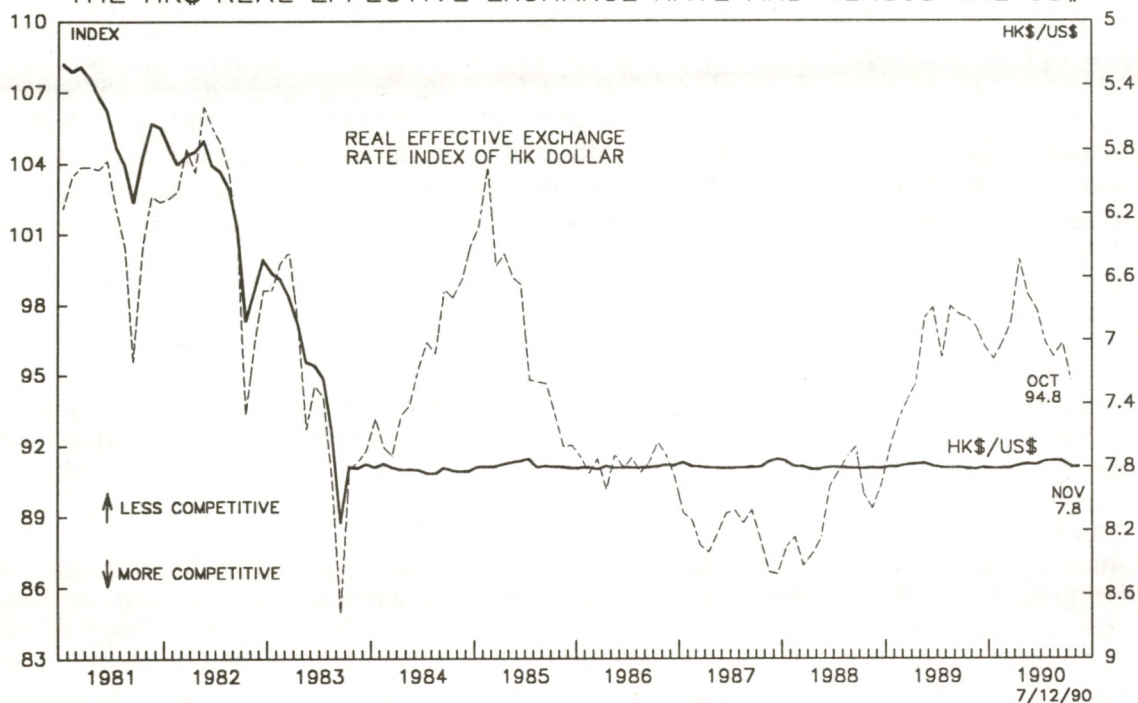
vice-versa) the free market rate cannot deviate much from the fixed parity. The US dollar, however, has continued to fluctuate against the European, British and Japanese currencies, and movements of these rates have continued to vary widely on either side of their bilateral purchasing power parity (PPP) rates. For example, in February 1985 when the yen was 259 per US dollar, the US dollar was approximately 25% overvalued relative to the yen, but was approximately 30% undervalued relative to the yen by December 1987. These fluctuations in the US dollar have translated directly into similar degrees of overvaluation and undervaluation for the Hong Kong dollar against other (third) currencies -- a situation which has led to some debate in Hong Kong as to the desirability or otherwise of the Hong Kong currency being pegged to a single currency such as the US dollar. (The March-April 1991 issue of AMM will carry a detailed analysis of this question.)

Chart 7 shows the HK\$/US\$ rate over the period 1981-1990. Superimposed on this is a real effective exchange rate index for the Hong Kong dollar (which has an arbitrary base date of 1972 = 100). This real effective rate (REER) is compiled from the weighted nominal exchange rates of 8 of Hong Kong's major trading partners, adjusted for changes in the consumer price indices of Hong Kong and the respective countries. The appreciation of the US dollar in 1984-1985 is clearly reflected in the sharp upward spike of the REER over the same period, apparently indicating that the Hong Kong currency or economy became substantially less competitive during those years as the index moved upwards from around 92 in early 1984 to 104 at the peak, but subsequently regained all the competitiveness that it had lost as the US dollar weakened. By late 1987 the REER had fallen to just over 86, only to rise again to 98 in April 1990.

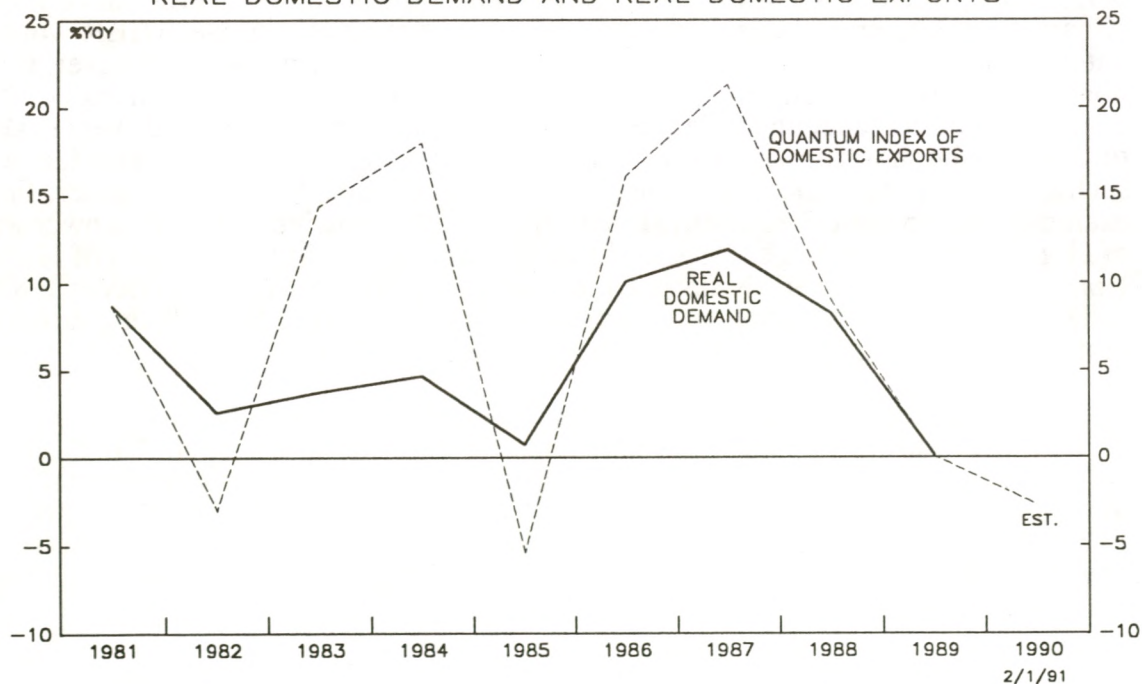
Since the appreciations and depreciations of the REER can be related to the performance of Hong Kong's domestic exports and Hong Kong's real GDP since 1983 (Chart 8), it is tempting to suggest that the maintenance of a stable REER would automatically stabilise Hong Kong's economic growth performance. However, it is not only the level of Hong Kong's currency which determines the growth rate of its economy. The currency and inflation have a dominant impact on competitiveness i.e. pricing -- in the short run -- long run competitiveness being determined by real factors such as the level of productivity discussed above -- but volume factors also matter. For example, in 1985 the US economy slowed significantly, contributing to the slowdown of Hong Kong's domestic exports, and thereby causing a sudden slowdown of Hong Kong's real GDP. Conversely, despite the weakness of Hong Kong's currency in 1987-1988 the growth of real domestic exports slowed significantly in 1988-89, and most of Hong Kong's growth in 1987-88 came from domestic demand.

More fundamentally, it is inappropriate to compare the competitiveness of two or more economies by reference only to their currencies and their CPIs. The consumer price index typically contains a range of items, particularly services, many of which are not directly subject to international competition or the "law of one price". For example it is not practical or feasible to travel to another country to benefit from lower cost waiter services, or cheaper haircuts, or cheaper taxi or bus services. The

HONG KONG: CHART 7
THE HK\$ REAL EFFECTIVE EXCHANGE RATE AND VERSUS THE US\$



HONG KONG: CHART 8
REAL DOMESTIC DEMAND AND REAL DOMESTIC EXPORTS



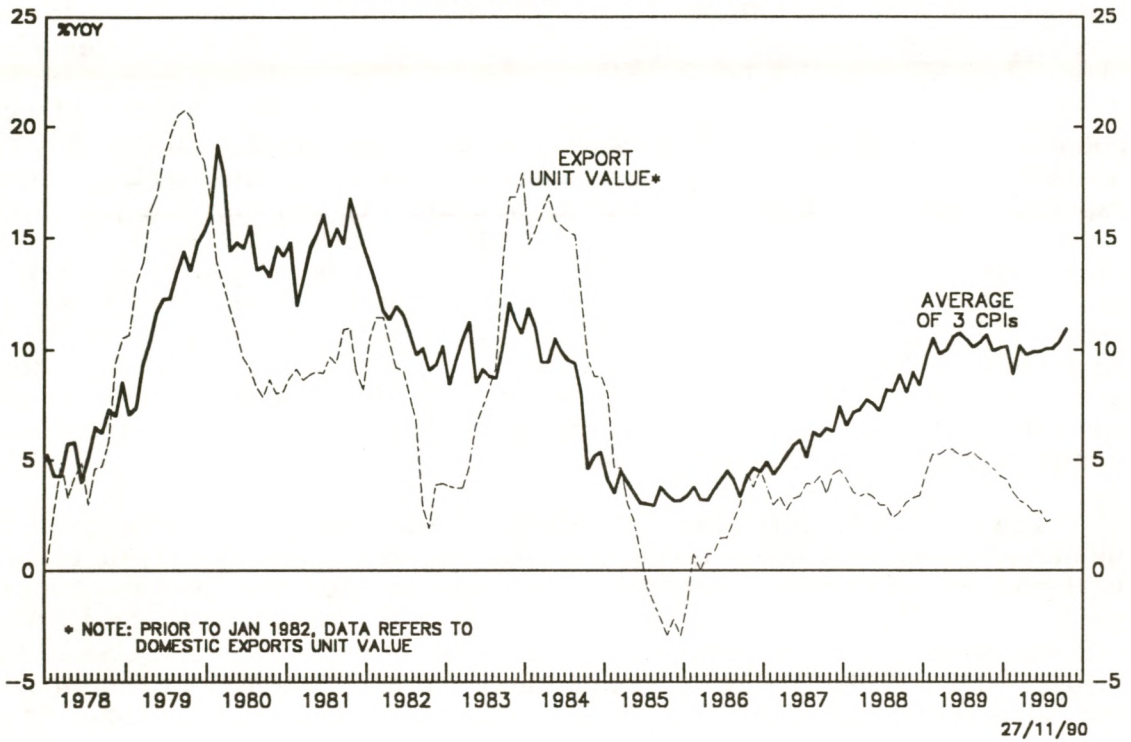
prices of these "non-tradeables" reflect local factor endowments, the degree of local monopoly and competition, as well as other factors. Hong Kong's external competitiveness would be best reflected in an index of the price of exported goods and services. The only available such index is the index of Export Unit Value -- an index obtained not by measuring the price of a constant basket of goods and services, but by dividing the value of Hong Kong's monthly exports by an index of the quantity of such goods (a quantum index). The result, shown in Chart 9, can be compared with the CPI. This shows that in the years when Hong Kong's REER was appreciating (1984-1985), export unit values were being slashed i.e. on account of exchange rate pressures, export prices were being cut to maintain competitiveness -- which is exactly what one would expect. Moreover, in the years since 1986 when Hong Kong's CPI has risen to around 10% p.a., the export unit value index has risen at an average of only 3.5% p.a., very much in line with comparable indices of inflation for tradeable goods in the USA. As a result, a PPP index for Hong Kong constructed using the Export Unit Value index and US wholesale prices (Chart 10) suggests that Hong Kong has not lost any competitiveness, or, put the other way, Hong Kong's currency is neither overvalued nor undervalued relative to the US dollar.

The reason why Hong Kong can experience a substantially higher rate of CPI inflation than the USA and yet remain internationally competitive is that productivity in Hong Kong is rising more rapidly than productivity in the USA. (N.B. the level of productivity in Hong Kong is about half the level of productivity in the USA as reflected in their different per capita income levels of US\$ 10,916 and US\$ 20,852 respectively for 1989). The greater rate of change of productivity in Hong Kong means that some sectors whose productivity is rising rapidly (whether manufacturing or services) can support other sectors (such as hairdressing or restaurant services) where productivity is not increasing, and yet keep the economy as a whole competitive.

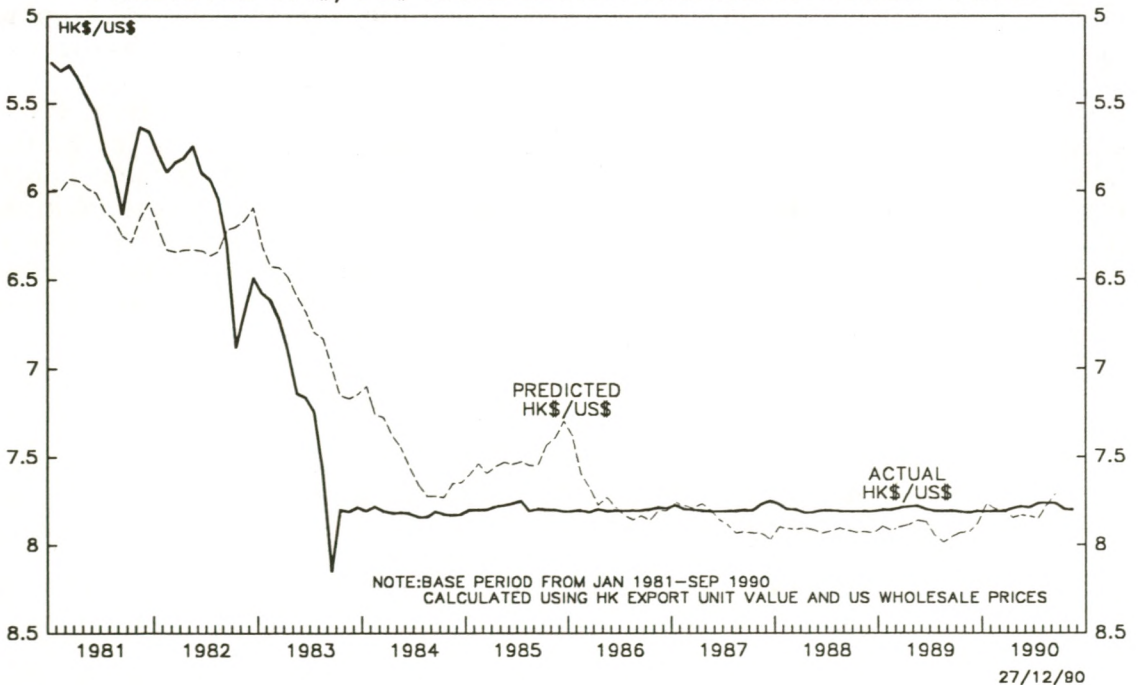
With the opening up of China to foreign trade and investment in the past decade, Hong Kong's economy has been changing its composition dramatically. As employment in manufacturing has shrunk and factories have been moved over the border into China, so employment in services and other tertiary activities has grown. This restructuring has been accelerated by the termination of the *Touch Base Policy* described above because this has deprived Hong Kong of the influx of low-skilled labour for the manufacturing and construction sectors. Consequently the economy has been forced to adapt and grow vertically rather than horizontally as it did in the past. At the same time, fears about the future of Hong Kong after 1997 have led to an outflow of people - amounting to nearly 1% of the population per annum - especially among the highly skilled 25-40 age group - which has intensified the apparent labour shortage in Hong Kong, and aggravated the wage differential between Hong Kong and Guangdong Province. Hong Kong's CPI inflation therefore reflects a combination of three factors:

- (1) inflation due to the "law of one price", equivalent to about 3% or 4% per annum, derived from the fact that the Hong Kong dollar is pegged to the US dollar, and the price of tradeables in the US is rising at 3-4% p.a.
- (2) inflation in non-tradeables, which is sustainable provided that productivity in Hong Kong continues to rise more rapidly than in the USA, and

HONG KONG: CHART 9
CPI AND EXPORT UNIT VALUE



HONG KONG: CHART 10
PREDICTED HK\$/US\$ RATE USING PURCHASING POWER PARITY



- (3) inflation due to the restructuring of the Hong Kong economy, which refers to that part of the shift into services or higher value-added activities which would not have occurred without (a) the ending of relatively free immigration into Hong Kong since October 1980 and (b) the brain drain or emigration ahead of 1997.

It is obviously virtually impossible to separate (2) and (3) satisfactorily. Furthermore, some goods and services contain both (internationally) "tradeable" and (internationally) "non-tradeable" components. Attempting to de-compose Hong Kong's inflation statistically in this way is therefore likely to be a somewhat fruitless exercise. As a rough approximation one can say that of the 10% CPI inflation in Hong Kong, approximately 4% is due to inflation in the USA, while the remainder is due to structural factors (a faster rise in the price of non-tradeables thanks to higher productivity growth in Hong Kong, the shift to services etc.)

CONCLUSION/FORECAST: Hong Kong's economy has experienced major structural changes in recent years, partly on account of its close links with China and the opening up of that economy to foreign trade and investment, and partly due to an important change in immigration policy which is seldom emphasised in assessments of Hong Kong's economy. The accelerated emigration since 1984 is an added factor, but not yet on the scale of the other two. These factors have affected the structure of Hong Kong's industry and its competitiveness from the real side. On the nominal side, the pegging of the currency to the US dollar has induced a measure of inflation (perhaps 3-4% p.a.), but much of the rest of Hong Kong's CPI inflation must be attributed to structural factors -- the growth of services and the rise in the price of non-tradeables -- offset in large measure by the power of fast-rising productivity in the Hong Kong economy as a whole.

Over the years ahead Hong Kong is likely to experience a continuation of the restructuring described above. As long as productivity growth continues to outstrip productivity growth in the USA it will be possible to maintain the pegged rate for the Hong Kong dollar and yet experience substantially higher CPI inflation in Hong Kong than in the USA. In view of the changing structure of the Hong Kong economy, simple comparisons of CPI inflation in the two economies do not measure or imply any loss of competitiveness in Hong Kong.

JAPAN THE OUTLOOK FOR LAND PRICES AND LAND POLICY RE- FORM

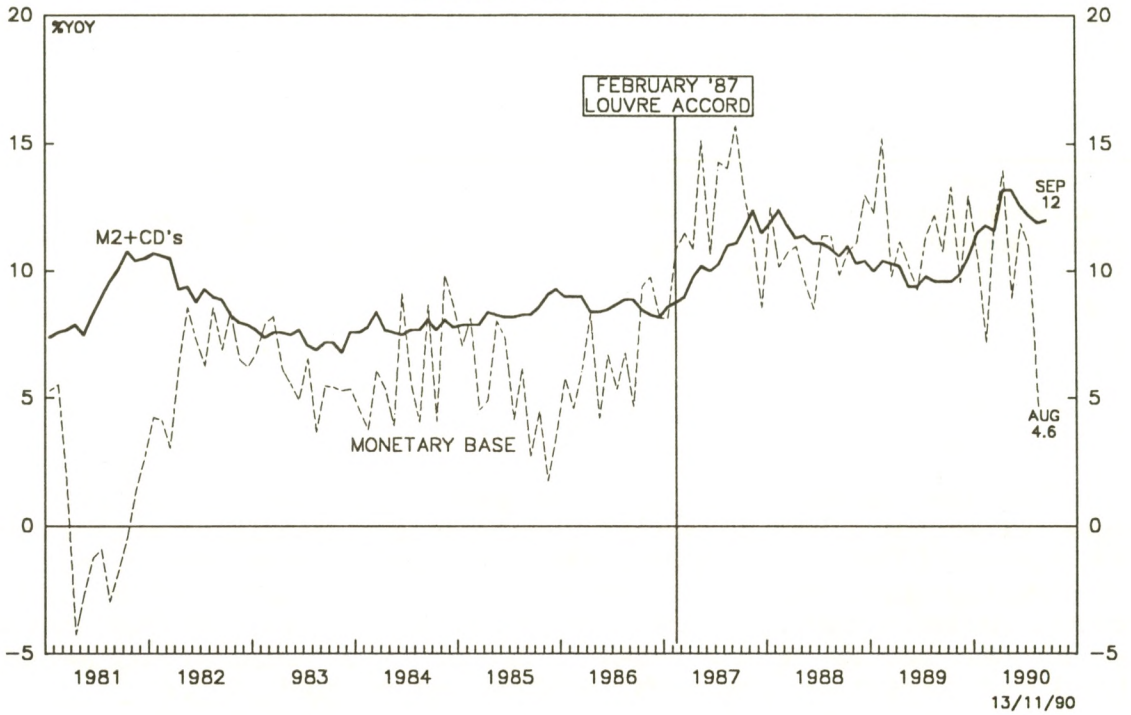
There is a belief in Japan that land prices can never fall in a group of islands which has the highest population concentration among the G7 nations (917 people per square kilometre of habitable land), over three times that of the next highest. Indeed, while stock prices have fallen by more than 30% six times since the war, land prices have declined only once -- by about 10% after the first oil shock in 1974-75. However, in a climate of rising interest rates and rising oil prices, the Japanese stockmarket has almost halved and many fear that land and property prices could well be the next to fall. This, it is argued, could bankrupt many companies who have borrowed heavily to invest in land which in turn will impact on the financial companies that extended these loans. Given that land has been used as collateral to buy stocks and vice versa, some people believe further falls in the stockmarket could be expected and a financial crisis in the banking sector, where property-secured loans account for about one third of lending, could well ensue.

This article examines the prospects for a severe fall in Japanese land and property prices and the likelihood of a resultant banking crisis. In the longer run the property market continues to be distorted by land usage policies and taxation anomalies. A discussion of these distortions and the likely path of reforms is therefore also included.

Following the Louvre Accord of February 1987, Japanese monetary policy was loosened to help support a weakening US dollar. As interest rates were lowered, the rate of growth of credit started to rise and with it the growth of money supply. Broad money supply M2+CDs which had grown on average 8.1% p.a. over 1983 to 1986, grew by an average of 10.7% p.a. from 1987 to the present day whilst a similar shift was observed in the monetary base. This climate of falling interest rates and rapid money and credit growth stimulated a period of extraordinary asset price inflation which saw explosive increases in the price of both shares and real estate.

From the beginning of 1987, the Nikkei Dow-Jones index rose by 80% to stand at just below 39,000 by December 1989. However, rising interest rates, poor corporate earnings and subsequently the Iraqi invasion of Kuwait caused the overvalued market to fall to around 6% below its 1987 levels by September 1990, although it has since rebounded somewhat. Land prices also rose sharply over 1987 to 1989 but in contrast to the stockmarket they have continued to rise this year. According to indexes of land prices compiled by the Nihon Fudosan Kenkyujo (Japan Real Estate Research Institute), from March 1987 to March 1990 land prices in Japan's six major cities (Tokyo, Osaka, Nagoya, Yokohama, Kyoto and Kobe) increased by 107%. Residential land prices rose 89% while commercial and industrial land prices rose by 122%. Tokyo saw the beginning of the explosion with prices doubling over 1986 to 1988, but as Tokyo rises levelled off other large cities started to catch up and register similar increases. Table 1 shows the pattern of land price appreciation over 1985 to 1990.

JAPAN: CHART 1
MONETARY GROWTH



JAPAN: CHART 2
LAND PRICES vs THE NIKKEI STOCK PRICE INDEX

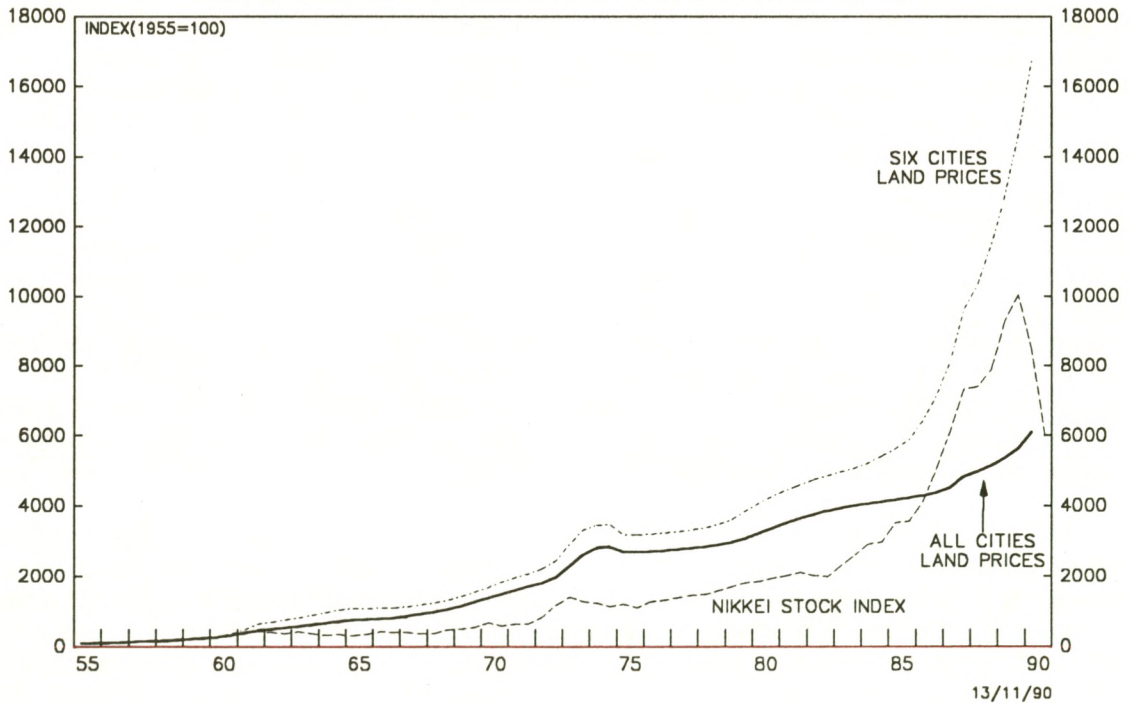


TABLE 1**LAND PRICE APPRECIATION ACCORDING TO THE JAPANESE GOVERNMENT OFFICIAL PRICE LIST, YEAR-ON-YEAR JANUARY 1985-90**

	1985	1986	1987	1988	1989	1990	July 1990*
Tokyo Metropolitan Area	3.4%	6.3%	27.8%	61.9%	5.8%	8.8%	10.6%
Osaka Metropolitan Area	3.6%	4.1%	6.6%	24.3%	35.2%	51.9%	45.6%
Nagoya Metropolitan Area	1.9%	2.0%	3.1%	8.7%	15.4%	18.5%	22.8%
3 Metropolitan Area Average	3.2%	4.8%	16.9%	41.1%	15.0%	21.7%	20.2%
Rural Area Average	2.3%	1.8%	1.6%	2.9%	5.3%	12.5%	10.5%
National Average	2.6%	3.0%	7.9%	22.4%	9.2%	16.3%	12.6%

* Year-on-year change according to the Standard Price List

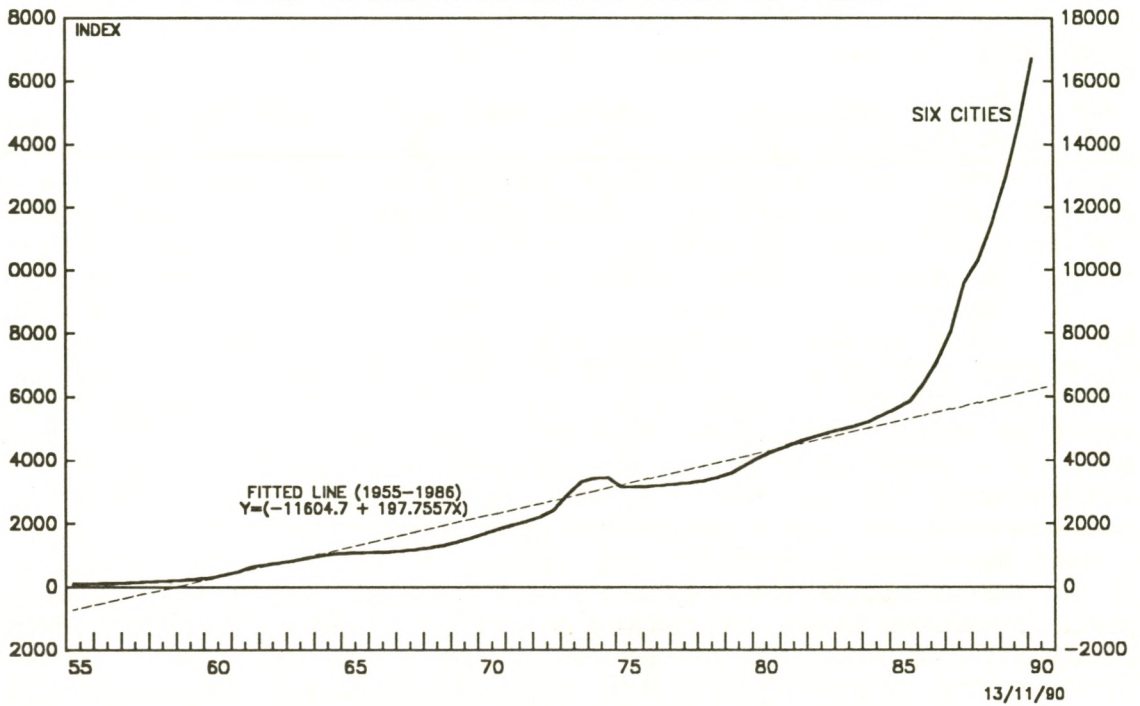
Over the same period the relationship between Japanese major city and all city land prices collapsed. From 1955 to 1986 these two indexes tended to move in line with a correlation of 0.995. However, over 1987 to 1990, land prices across all cities failed to reflect movements in the major cities, only increasing 35% (29% residential, 40% commercial and industrial). Chart 2 shows that while all city land prices have moved slightly away from the norm and stock prices seem to have adjusted back towards trend, land prices in the major cities have shifted extravagantly off path.

Chart 3 shows the fit of a linear trend line of the form $y = a + bx$ to the data on major city land prices over the period 1955 to 1986. This fitted line has an R^2 of 0.95. Extrapolating the trend line suggests that major city land prices are currently approximately 60% overvalued. Although the growth in all city land prices has been significantly slower than that in the major cities over recent years, it has nevertheless, deviated substantially from its long term trend. Employing a similar methodology for all city land prices (Chart 4) yields a trend line, with an R^2 of 0.97 over 1955 to 1986, that is approximately 20% below current levels.

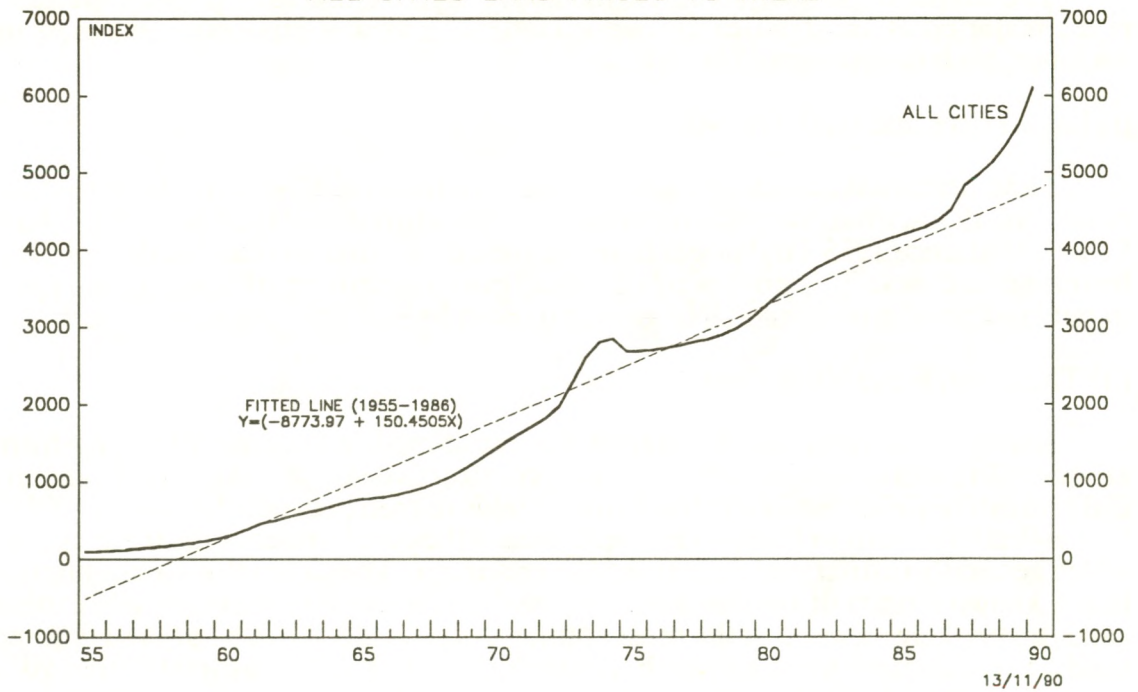
The question arises, therefore, as to whether these deviations are sustainable because they reflect shifts to new growth paths, or whether there should be corrections back to trend and if so, over what timescale these corrections should take place. Given that share prices have reverted sharply back towards trend over the last year it is tempting to argue that land prices should automatically follow suit, especially as land prices have empirically tended to track share prices fairly closely (over 1955 to 1986 the correlation between the Nikkei Dow Jones and all city land prices was 0.956). However, such an argument on its own is glib and it is, therefore, necessary to examine the factors driving share and land prices.

The long run price of a share in an efficient and liquid market should reflect expectations of future earnings. If a share is priced below its "correct" price, there should be infinite demand for the share and the market will rapidly drive up its price until a fair valuation is reached. Conversely, if a share is overpriced it will have zero demand and its price should fall back to a fair valuation. It, therefore, follows that the long run demand curve is flat or perfectly elastic. In this case supply is irrelevant and

JAPAN: CHART 3
LAND PRICES IN SIX MAJOR CITIES VS TREND



JAPAN: CHART 4
ALL CITIES LAND PRICES VS TREND



depends on the market capitalisation of a company which in turn depends on the market expectation of future earnings. Issuing more shares cannot change these expectations. Given the efficiency and liquidity of the Japanese market the recent correction can be seen as an expected return to fair valuation.

The long run supply and demand determinants of land and property prices are significantly different to those driving share prices. At the macro level, the supply of land is bounded by geographical constraints whilst demand should increase with population and infrastructure growth. At the micro level, however, the supply of land is determined by land usage policies and the relative attractiveness of holding or trading land. The supply of new property is in addition, determined by the expected returns of development. On the demand side, prices are driven by the utility of the land's current usage plus future expectations of utility of usage, earnings streams and capital gains. Put simply, people and companies will always require places to live and places to operate from and given a finite supply of land, both demand and supply should both be relatively inelastic. Nevertheless, land and property prices may well reach a level where they become unaffordable and at this stage they should fall back or at least stabilise for a period of time. While adjustment in the stockmarket may well be almost instantaneous, the slower nature of land transactions and the timescale of property development suggest that the adjustment process is likely to be less abrupt. Furthermore, although a chain of causation can be traced from land to stockmarket prices due to falling land prices impacting on the portfolio values of listed companies, there is no reason why a fall in stock prices should impact on land and property prices. Therefore, the adjustment path of land and property prices can be examined as an independent phenomenon.

The simple trend analysis employed above suggests that land prices, especially in the major cities are significantly overvalued. This view is supported by a mass of evidence, both economic and anecdotal.

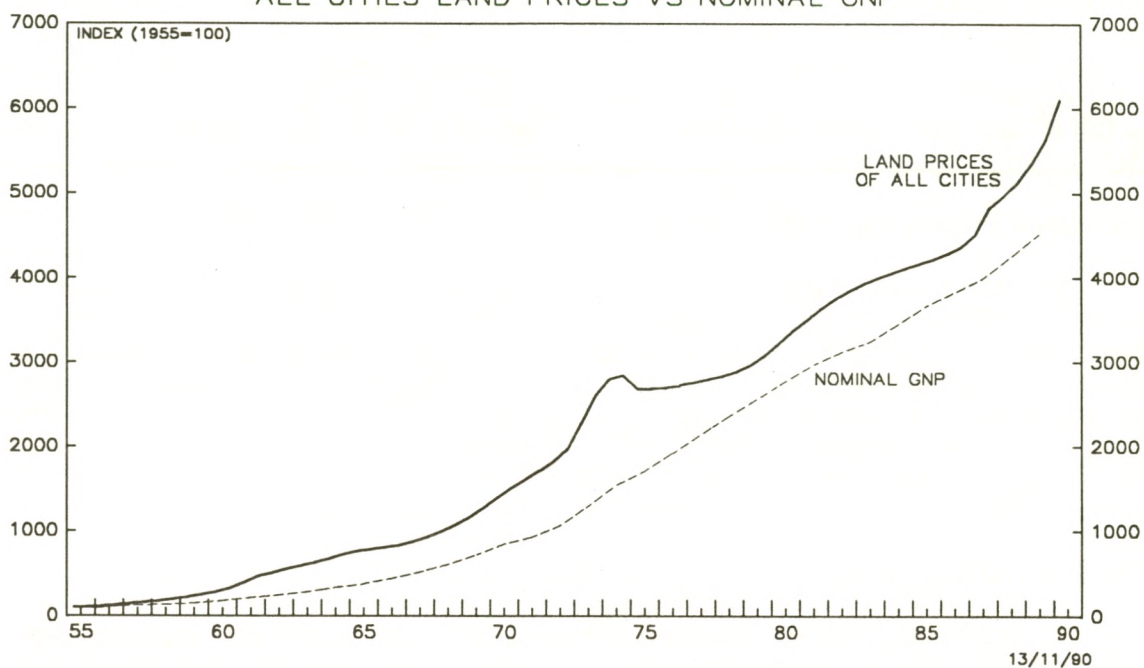
(i) Land Prices and GNP Growth

Land prices have tended to grow in line with nominal GNP with the exception of the mid-1970s, when a correction subsequently occurred, and the late 1980s. Chart 5 shows that since 1955, land prices have registered a 60-fold increase while GNP has increased 46 times. This implies a fall in land prices of around 20% is necessary just to put land price growth and GNP growth back in line.

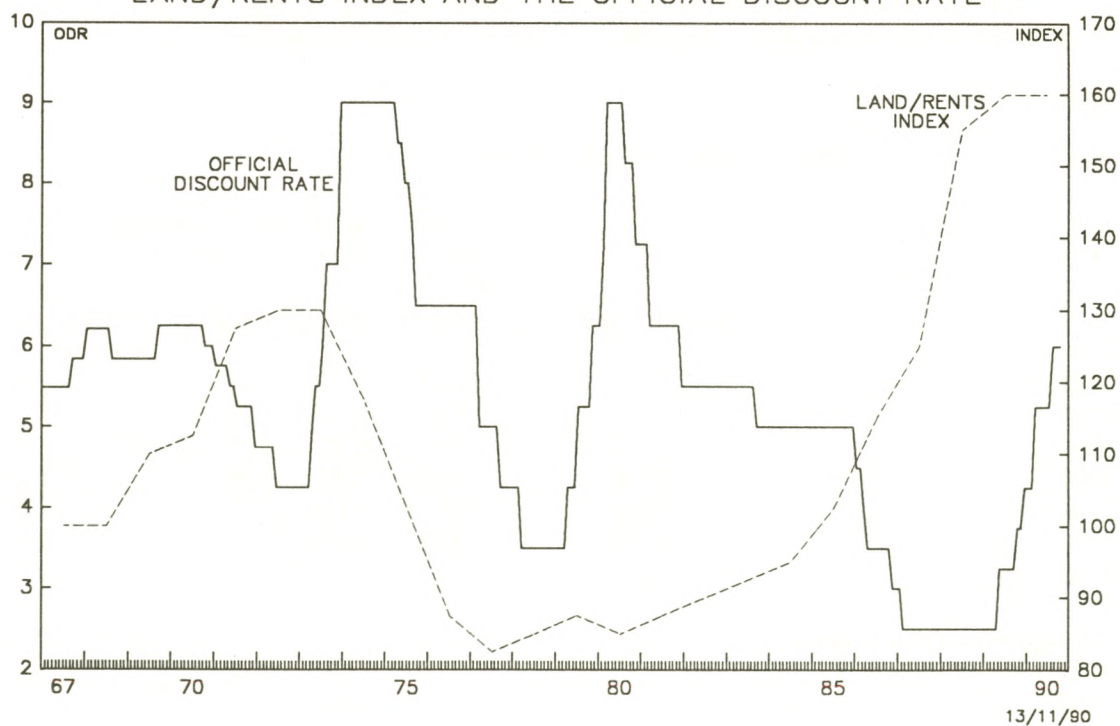
(ii) The Land/Bond Yield Gap

Rising bond yields have widened the traditional land/bond yield gap from around 3% to around 5%, lowering the relative attractiveness of real estate. Commercial real estate yields tend to be low (Tokyo yields ranged between 2.31% and 4.25% for new built property in 1989, for example) due to the peculiarities of the tenancy laws which generally restrict rent rises to 4.5% per annum. Thus a landlord locks himself into a known stream of income and holds real estate on the expectation of capital gains, an unlikely scenario at the present time. As an aside, it can be argued that the yield on real estate is much higher, between 8% and 11% as it is estimated that 90% of new floorspace is developed on land held for greater than 10 years in company "land banks". Naturally its book value is substantially below its market value. Nevertheless, the underlying argument of a shift in the yield gap still stands.

JAPAN: CHART 5
ALL CITIES LAND PRICES VS NOMINAL GNP



JAPAN: CHART 6
LAND/RENTS INDEX AND THE OFFICIAL DISCOUNT RATE



There are three scenarios for this gap to narrow again: flat land prices and a rise in rental income which raises land yields; land prices fall which again raises yields; and/or interest rates fall but land yields remain at current levels. Given the current tenancy laws, a slowing economy and rising vacancy rates, the first of these seems unlikely while cuts in interest rates cannot be expected in the near future. This leaves a fall in land prices as the likely scenario. For the yield gap to close again a fall of around 40% is implied, assuming rental growth is flat.

(iii) Land Prices and Rental Growth

As mentioned above, the Japanese tenancy laws, formulated in 1921, prevent rents from rising more than 10% in two years, i.e. 4.5% per annum, and protect tenants from eviction. These laws were originally drafted to protect the families of soldiers. In general, falling interest rates have tended to make land prices grow faster than rents whilst rising interest rates have had the opposite effect (Chart 6). However, over the long term, the ratio has been fairly stable. The index had an average of 102 between 1967 and 1986, ranging between 82.5 and 130. At its current level of 160, the index needs to fall around 35% for the ratio of land prices to rents to return to normal.

(iv) Affordability Ratios

Over 60% of Japanese own their own houses but the rapid appreciation over the late 1980s has effectively priced many potential new home owners out of the market. Rising interest rates are now making borrowing costs more expensive further diminishing the ability to buy. Table 2 below shows the ratio between average condominium prices and average income. Once again this suggests a fall in land prices in order to see a return to the "acceptable" ratio of 5. It is estimated that even if land prices were to remain flat, it would take at least 10 years for wages to catch up.

TABLE 2

CONDOMINIUM PRICES AND RATIOS TO SALARIES

Year		Distance from City Centre (km)		
		0 - 10	10 - 20	20 -30
	Long term prime	Average Price/Average Salary		
1984	7.9%	6.93	6.15	5.20
1985	7.0%	6.95	5.78	5.12
1986	6.4%	7.10	5.93	4.94
1987	5.2%	10.89	7.93	5.86
1988	5.7%	15.62	10.43	7.25
1989	6.0%	15.31	10.68	8.18
1990	8.0%			
Average Price (Yen million)				
1988		97.0	64.8	45.0
1989		97.7	68.1	52.2

(v) The LDP and the Bank of Japan

The Japanese authorities have become increasingly concerned that the lack of affordability of property for many Japanese will prove divisive in a traditionally egalitarian society. While asset price appreciation was stable, the majority of society benefited as gains were distributed throughout the economy. The increase in wealth allowed the percentage of Japanese who owned their own home to rise from 59.2% in 1973, to 60.4% by 1978 and to 62.4% by 1983. However, this figure had fallen back to 61.4% by 1988 as prices spiralled on the back of speculation whilst most of the wealth created found its way into corporate balance sheets. The fear of the creation of a society of "haves" and "have-nots" has prompted the authorities to examine the structure of land taxes. In May 1987, tax reform made short term speculation unattractive and further reforms have recently been proposed by the Ministry of Finance (MOF). A detailed examination of the land tax structure is set out below. Furthermore, Mr. Yasushi Mieno, the Governor of the Bank of Japan (BOJ) has recently been quoted as saying that he would like to see land prices decline by 20%.

The above evidence suggests that a fall in land prices of at least 20% is imminent. Indeed property-related stocks on the First Section of the Tokyo Stock Exchange have fallen over 50% since the beginning of the year compared to 40% for the index as a whole. However, it is unclear whether such a decline, should it materialise, would be rapid and sudden, or controlled and spread over a longer time period. Should the former occur it is likely that a panic would ensue with the MOF having to intervene as it has in the stockmarket. Under this scenario, it is feasible that prices would fall well in excess of 20% precipitating a financial crisis. Fortunately, for reasons explained below, this scenario is extremely unlikely to occur and a managed decline of around 20% over the next two years is more probable. Nevertheless, declines will not be uniform with certain sectors declining faster and by a greater amount than others. Although declines will seriously impact some of the smaller, poorly-capitalised real estate companies (Japan has around 120,000, 1 for every 1,000 people and over 40 have already declared bankruptcy this year), the larger banks and financial institutions should be able to weather the storm.

As argued above, the supply and demand for land and property tends to be inelastic. Prices in Japan have now reached a level where demand is becoming more elastic but land usage policy and the land tax structure combine to keep supply severely restricted. Although prices are likely to fall back over the next couple of years, the potential for another speculative bubble to materialise in the future will exist unless radical reforms are implemented. Japanese land usage policy is based on a system of zoning that divides land into five general categories: urban areas, agricultural zones and districts, forests, national parks and nature reserves. Each of these categories must conform to such general regulations as the Urban Planning District and Agricultural Promotion District Laws. Such guidelines are meant to protect the environment while promoting appropriate development efficiently. For this reason, the formulation of plans involves all parties concerned, from residents to prefectural governors and cabinet ministers. A proposal submitted to the prefectural governor by the national government, for example, would be reviewed by the local government in question, the area's residents, and the National Land Use Local Planning Council. If all parties are in agreement, the plans are submitted to the National Land Agency for final approval.

The workings of the inner bureaucracy and regulations governing the use of land are too complicated and numerous to be discussed here. Suffice it to say that land demarcations are based on the five general categories mentioned above, and that various subcategories often overlap. The latter point is particularly true of urban and agricultural zones and districts.

The question of opening up new land for development in urban districts concerns two areas of city planning: urbanisation promotion and urbanisation control. Urbanisation promotion aims at efficient development through adequate planning for roads, sewers, garbage disposal, and other regulations place constraints on development in order to protect farming and prevent urban sprawl.

Urbanisation control regulations are flexible, however. For example, while agricultural land in and around Tokyo usually falls under the jurisdiction of urbanisation control, the sons and daughters of local residents are permitted to build additional homes for themselves on family land. Because of their proximity to Tokyo, these districts have continued to undergo further development, albeit in a haphazard manner that disregards basic infrastructural considerations. Inefficient land use accounts for part of the housing problem in the metropolitan Tokyo area. For example, there are 89,000 acres of farmland and 56,000 acres of vacant land in the greater Tokyo area, which in a free market could be sold for substantial sums. Not surprisingly, therefore, pressure has been mounting to change zoning regulations covering urbanisation control and promotion.

Many urbanisation control areas, however, have not been experiencing sprawl and do not welcome development. With ample space and clean air, these areas enjoy a standard of living that is often quite high. It is thus difficult to change ordinances uniformly on a national basis, and these regulations differ according to region and must be carried out with the full participation of the residents in each area concerned.

The zoning ordinances in Japan are particularly complicated with regard to the size and shape of structures. These include guidelines dealing with the right to sunlight, ventilation, and a host of other considerations, as well as earthquake safety regulations. These guidelines have had a definite impact on the supply of office and residential space and are summarised in Table 3 below.

Due to land shortages in the Tokyo area, development sites are being relentlessly sought. Land in urban promotion districts is generally covered by such regulations as plot and capacity ratios. Development of land in urban control areas, however, is not covered by the usual ordinances. For this reason, provisions exist for licensing the development of land in urbanisation control areas. Generally speaking, when development has been deemed necessary, the prefectural governor's office draws up plot and capacity ratios, height limits, wall positions, material and infrastructure specifications, and other relevant guidelines. These regulations should still protect the environment, and when necessary, government bodies should make funds available for infrastructure development.

TABLE 3

BUILDING RATIOS

PLOT RATIO: the maximum permissible ratio of building area to total plot area.	CAPACITY RATIO: the maximum permissible ratio of total building floor space to total plot area.	HEIGHT CONTROL: maximum and minimum permissible building heights.
Plot ratios range from 30% for residential land to 1000% for commercial land. A distinction is made between fireproof and non-fireproof buildings. Other criteria for assessing the plot ratio include the size of plot, proximity to parks, rivers etc. and the district classification.	Capacity ratios, like plot ratios, are based on land-use demarcation varying upwards from residential, to commercial and industrial. They are subject to a myriad of regulations and exemptions regarding plot size, garage space, courtyards etc.	The height of buildings conform to controls depending on location, district type, building materials used etc. Sunlight and ventilation regulations also govern height, the slope of buildings and the relationship of a plot to neighbouring plots.

In some special urban districts, the efficient use of land takes priority over sunlight rights, plot and capacity ratios, and other height restrictions. Some examples can be seen in Tokyo's Kasumigaseki and Shinjuku districts. Buildings in these and other areas do not always conform to regular height regulations, and the number of such special areas is increasing.

Finally, provisions exist for the formulation of consolidated plans that deal with a prefecture or city as a whole, and which coordinate such related areas as transportation, public safety, fire prevention, sanitation, parks, and sunlight rights. These plans generally take precedence over all others, although exceptions may be permitted when beneficial to society overall. The special urban districts mentioned above provide one such example.

Nevertheless, the general result of Japan's land usage policies has been a severe restriction of the supply of land and property, and in many cases, an inefficient use of land. While an extension of special exemptions will boost supply at the margin, only a complete review of the system will lead to significant increases. However, reform of the zoning regulations must also be in tandem with a review of the land tax structure which currently encourages the holding of land and discourages its transfer. The existing land tax structure is summarised in Table 4 below. Land taxes are levied on the basis of a valuation but this is an area of confusion since there are three official valuation levels -- National Land Agency (NLA), Inheritance Tax (IT) and Asset Holding Tax (AHT). All three valuations tend to understate market values. NLA is between 50% to 70% of observed market values while IT is around 70% of NLA. AHT is around 20% to 30% of market values and is assessed by the local government.

TABLE 4

CURRENT LAND TAX STRUCTURE

	ITEM LEVIED	VALUATION USED	TAX RATE	TAX RECIPIENT
ACQUISITION TAXES				
Stamp Duty	Land, Buildings	Purchase Value	0.6%	MOF
Land Acquisition Tax	Land	Purchase Value	0.4%	Local Govt.
Transfer Tax	Land, Buildings	Purchase Value	5.0%	MOF
HOLDING TAXES				
Asset Holding Tax	Land, Buildings	AHT	1.4% (Average)	Local Govt.
Urban Planning Tax	Land, Buildings	AHT	0.3%	Local Govt.
CAPITAL GAINS TAXES (Individuals)				
Land owned > 5 years and Gain < Yen 40 million	Land, Buildings	Capital Gain	20%	MOF
	Land, Buildings	Capital Gain	6.0%	Local Govt.
Land owned > 5 years and Gain > Yen 40 million	Land, Buildings	Capital Gain	(25% - Yen2m.)	MOF
	Land, Buildings	Capital Gain	(7.5% - Yen0.6m.)	Local Govt.
Land owned < 5 years	Land, Buildings	Capital Gain or Proceeds	(1)	MOF
	Land, Buildings	Capital Gain or Proceeds	(2)	Local Govt.
CAPITAL GAINS TAXES (Corporations) (3)				
Land owned > 5 years	Land, Buildings	Capital Gain	50%	MOF
Land owned between 2 to 5 years	Land, Buildings	Capital Gain	80%	MOF
Land owned < 2 years	Land, Buildings	Capital Gain	90%	MOF
INHERITANCE TAX (Individuals)	Land, Buildings	IT	10-70%	MOF

(1) = Greater of 40% of Capital Gain or $\{(Purchase\ Value + Capital\ Gain - Yen\ 0.5\ million) \times$
 $Income\ Tax\ Rate - (Purchase\ Value \times Income\ Tax\ Rate)\} \times 110\%$

(2) = Greater of 12% of Capital Gain or $\{(Purchase\ Value + Capital\ Gain - Yen\ 0.5\ million) \times$
 $Local\ Tax\ Rate - (Purchase\ Value \times Local\ Tax\ Rate)\} \times 110\%$

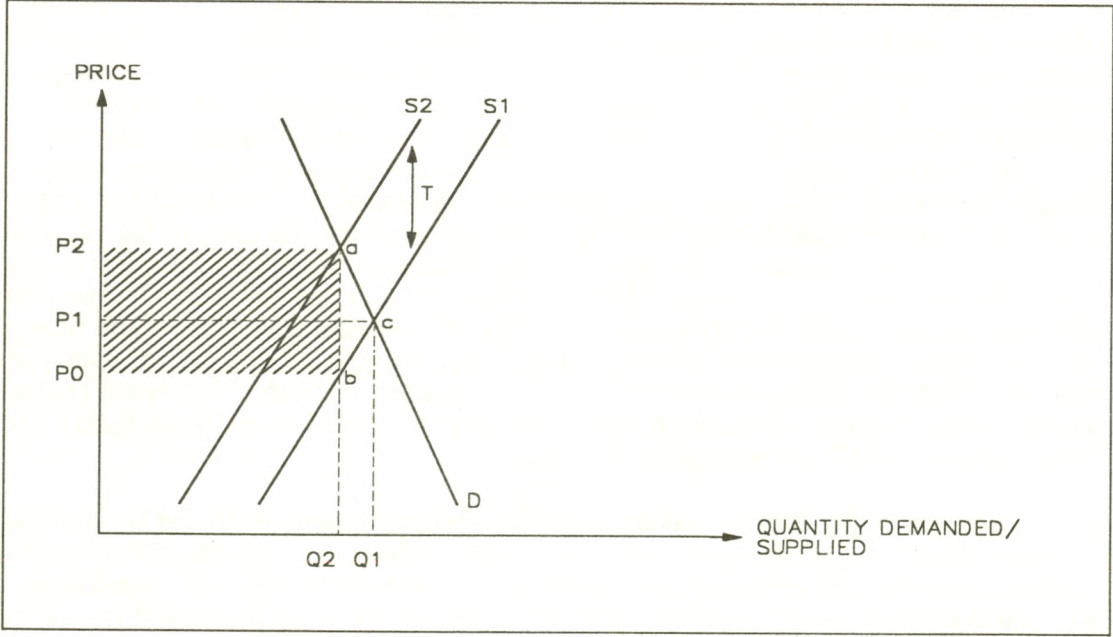
(3) In addition, individual real estate dealers are subject to a tax of 52% of the sale price, not the profit, on land sold after less than 5 years in possession.

As the table shows, the current regime certainly discourages transfers of land held for less than 5 years and encourages, or at least does not penalise the holding of land. However, in practice, land tends to be held for periods greater than 5 years due to expectations of future capital gains and provisions of Japanese income tax regulations. Under the current system, a landholder can borrow up to 70% of the market

value of his land using his property as collateral. This interest on this debt is fully offsetable against income tax. In addition, a mortgage is classified as a negative inheritance and given that the IT valuation is between 35% to 49% of market value, IT can thus be fully mitigated.

The Japanese authorities appear to have realised that it is necessary to boost the supply and turnover of land in order to manage a gradual reequilibration of prices. This is reflected in the MOF's latest tax reform proposals as well as proposed changes in valuation methods. These proposals are outlined below but it is first necessary to mention that the MOF has ulterior motives with regard to tax reform in addition to the desire to bring about land reform. As part of the recent Structural Impediments Initiative (SII) with the US, Japan has agreed to spend Yen 43 trillion over 10 years from 1991 on public works investment. Only 15% of this sum is allotted to land purchases, so the MOF has two further motives -- to minimise land price rises and to raise extra revenues. In addition, following the outcry over the introduction of the Consumption Tax, the MOF is not keen to alienate the population as a whole. Its latest tax proposals exempt over 80% of Tokyo land owners, for example, but there is scope for the tax to be a "Trojan Horse" which can be gradually extended to include more people. The MOF tax advisory committee has envisaged a new national tax starting in fiscal 1992, which, given the extent of its exemptions, will in effect tax corporate landholdings. No tax rate has been proposed but rates of between 0.5% and 1% of IT valuations seem likely. Exemptions are likely to be granted on properties smaller than 300 square metres or valued at less than Yen 500 million. Leaving aside, for the moment, whether the tax will be passed into law, it is unlikely to have the effect of either substantially reducing prices or boosting supply. Indeed, in the long run, its effect may well be inflationary as demonstrated by Figure 1 below.

JAPAN: FIGURE 1
THE LONG RUN INFLATIONARY IMPACT
OF THE PROPOSED LANDHOLDING TAX



Given that both Japanese land supply and demand are inelastic -- the following scenario can be expected. The imposition of the new tax shifts the supply curve upwards to the left from S_1 to S_2 by the amount of the tax T . The equilibrium quantity demanded/supplied falls from Q_1 to Q_2 while prices rise from P_1 to P_2 . The consumer now pays a higher price ($P_2 - P_1$), the supplier receives a lower price ($P_0 - P_1$) and the government receives tax revenues represented by the shaded area abP_0P_2 . The area abc is the inefficiency cost of the tax or the "deadweight loss". In reality, the market is currently disequilibriumed so the scope for suppliers to pass on much of the extra cost may be limited in the short run. This is also constrained by tenancy laws, so new tenants may well bear the brunt of the rises.

However, a significant boost to supply seems unlikely as there exist two counteractionary forces. Although the tax may encourage some developers to utilise their property more efficiently others may cut back on their development plans in order to absorb their increased costs. Even if the tax were to cause a large number of distress sales, it seems likely that the majority of any new supply would be bought by the big corporations for their land banks. The LDP Tax Research Council will ultimately decide whether the tax passes into law and the composition of this committee makes it unlikely that the tax will be passed in its present form. Some estimates put the increased tax liability at 8 or 9 times current levels and various factions of the LDP will naturally oppose such increases. Nevertheless, the announcement of the tax had the desired psychological effect of further dampening speculative pressures and conveying the message to the "have-nots" that something is being done. A watered-down proposal which taxes underutilised land is the more likely and sensible alternative although a definition of underutilisation is difficult to come by. Various measures such as the utilisation of less than 10% of plot ratios with no plans for development within 2 years have been suggested, but problems such as the classification of land used for carparks, railway yards etc. imply that it may be a few years before any proposals are enacted.

Various other reforms have been introduced or proposed in an attempt to address the land problem. Further rises in capital gains tax have been suggested to help drive remaining speculators from the market. This seems perverse as much of the speculative heat has already been taken out of the market and such measures would further restrict supply. However, the need to prevent another speculative bubble is apparent. More positive developments are subsidised development loans to farmers, changes in zoning rules concerning agricultural land use, and the tax offsetability of proceeds from land sold to the Housing Corporation of the Ministry of Construction. There also exists a cosmetic proposal by the NLA to change its valuation method. Currently, land prices are evaluated on a transaction basis, so land that changes hands a number of times in a short period is recorded at its speculative price. The new proposal is to eliminate plots of land that have been subject to this sort of speculative turnover from the calculation of an area's valuation price thus lowering recorded prices. While this may show up in a desired fall in land prices next year, it may breed complacency and slow the impetus for reform.

The continuing supply and demand imbalance coupled with the lack of major reforms makes the scenario of a severe, rapid decline in land and property prices nationwide extremely improbable. Nevertheless, some corrections are inevitable and anecdotal evidence suggests that these corrections have already started to occur.

Taking the commercial market first, top quality, central locations in the major cities are unlikely to see any downside. For many companies a prime location is paramount and office vacancy rates are only around 0.2% with some areas having long waiting lists. This should support prices and rental incomes. However, it is clear that the market for property in the secondary business areas, which have seen more development and greater appreciation relative to trend in recent years, is more vulnerable. Tokyo has already seen a slowdown in this sector and similar properties in Osaka and other major cities are likely to see depreciations. With more property coming on stream within three years, prices could fall between 20% to 30% although in Osaka in particular, the falls may well be larger. It should be noted, however, that of the total value of land, prime sites represent a sizeable proportion. This limits the overall downside for the commercial sector to maybe 20%.

In the residential market, the top 10% of the market has already seen falls of around 25% and further declines seem likely. The lower 10% of the market, that for second hand condominiums should see similar fall as they have tended to appreciate faster than new properties over the last few years. However, the remainder of the market which comprises mainly new condominiums of less than 125 square metres, costing less than Yen 64 million, is better supported. Although the percentage of properties sold within 1 month of completion has fallen from 90% to 60% since the beginning of this year, this probably reflects a cyclical downturn and should not signal a substantial fall in prices. Naturally prices are likely to fall or at least stagnate, but demographics, the lack of second hand supply and the financial structure of company subsidised mortgages, should limit the downside to around 10%.

An alternative approach to measuring potential falls in land and property prices is one that examines the indebtedness of land holders. This also suggests that commercial prices have further to fall than residential prices.

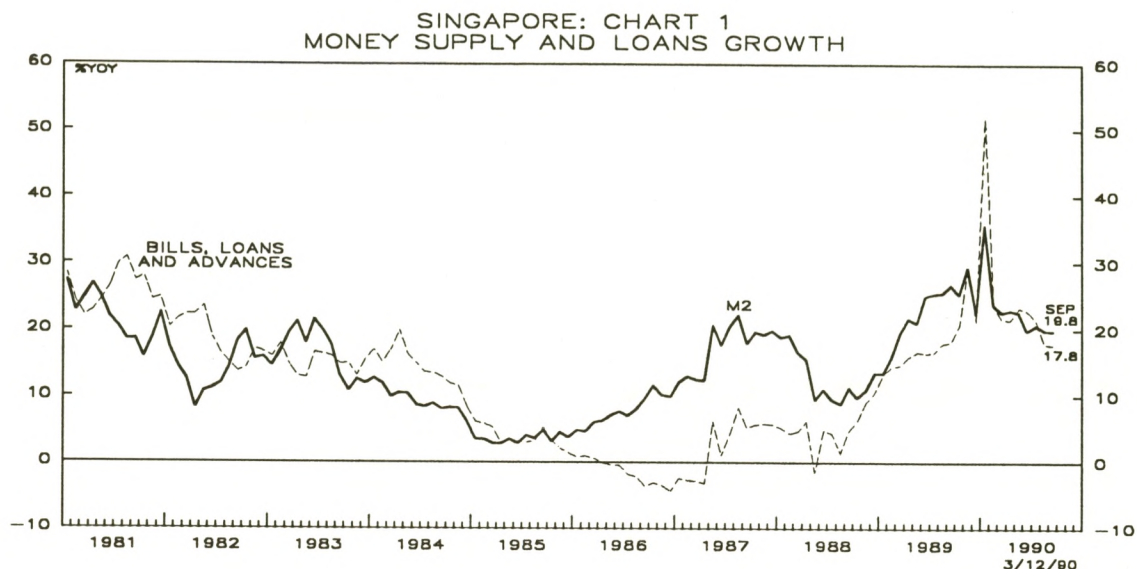
Of Yen 2000 trillion of private land, approximately two-thirds is held by individual households and the remainder by corporations. Only 35% of households have mortgages and these total only Yen 10 trillion or 7.5% of the land they are held against. This suggests that private households will be able to absorb any declines and will not be forced into distress sales. Given that private land is rarely traded, the concern for the majority of Japanese people is not that prices should continue to rise, but their ability to offset inheritance tax and transfer their estates intact.

The commercial sector is less financially sound. Real estate companies own around 10% of land owned by corporations, approximately worth Yen 60 trillion, but have incurred borrowings of Yen 70 trillion. Clearly this is an over-leveraged position and many of the smaller companies capitalised between Yen 5 to Yen 10 million are likely to be bankrupted or forced into distress sales. However, companies not engaged purely in real estate are in a far healthier position with loans of only Yen 130 trillion against land valued at Yen 600 trillion. They therefore see the current difficulties as part of a cyclical downturn and are looking to buy up the smaller companies and their land at reduced prices and add this land to their land banks. This suggests little in the way of increased supply, and thus a limit to the downside.

Given the limited downside, the impact on the banks, who generally lend against 70% of market values, should not be fatal. Nevertheless, with the need to meet the BIS capital adequacy ratios of 8% by March 1993, many financial institutions could be severely squeezed and some of the smaller regional banks plus a substantial number of small real estate companies could fail. Following the falls in the stockmarket this year, most of the banks, with the exception of the Trust Banks are now below the BIS ratio. This position will be worsened by any falls in property prices. Although property loans appear to be reasonably low as a proportion of the total assets of Japanese banks, the figure has risen sharply over the last few years. For example, for the 5 largest city banks, the ratio rose from 15.8% in 1985 to 24.5% in 1990. Furthermore, the figures for direct lending to the real estate sector substantially understate the true exposure which may be nearer a third of total assets. Banks have made substantial loans to construction and real estate companies, and have also guaranteed property-related loans made by foreign banks. Because of fears of property declines severely impacting on the banking sector, the BOJ has instructed city banks to contract their lending growth to the real estate sector by a third in the fourth quarter of this year. However, banks are already contracting credit on their own accord, not renewing loans to some property developers and asking others for repayment. This further increases the chances of a large number of small real estate company bankruptcies. Nevertheless, given that price declines over the next couple of years are likely to be orderly and have limited downside, the major financial and real estate companies should be sufficiently strong to weather the storm.

SUMMARY AND CONCLUSION: Japanese land prices have certainly become overvalued in recent years and a correction over the next couple of years is likely. This correction is unlikely to be uniform with certain areas being harder hit and commercial property falling further than residential. An overall fall of around 20% seems likely and although there may be a number of bankruptcies amongst small real estate companies, the impact on the financial sector should be manageable. In the longer run, it is necessary to prevent the future occurrence of a similar speculative bubble. This requires substantial reforms in the Japanese taxation system and changes in land usage policy. There is evidence that over the next decade such reforms may well be forthcoming. The younger generation of the LDP have less attachment to the farming lobby and tend to be more favourable towards urban development. This is borne out by the proposed creation of the Council for the Promotion of Housing Development on Agricultural Land, and a change in emphasis from rural to urban in public works placement policy. The intention, therefore, seems to be to manage an orderly decline in land prices to close the gap between the haves and have-nots and restore the ability of the average Japanese to buy his own property. Only when prices have returned to sustainable levels and financial markets have stabilised, are radical reforms likely to be introduced.

SINGAPORE: MONEY GROWTH DECLINING BUT LIQUIDITY INDICATORS RISING



During the first nine months of 1990, M2 money growth declined from a high of 24% yoy (adjusted for share issues) to 19.8% yoy in September (Chart 1). Interest rates have also been rising during this period with prime rates up by 200 basis points. Bank lending growth has also declined although its growth for August and September has remained at 17-18% (Chart 1).

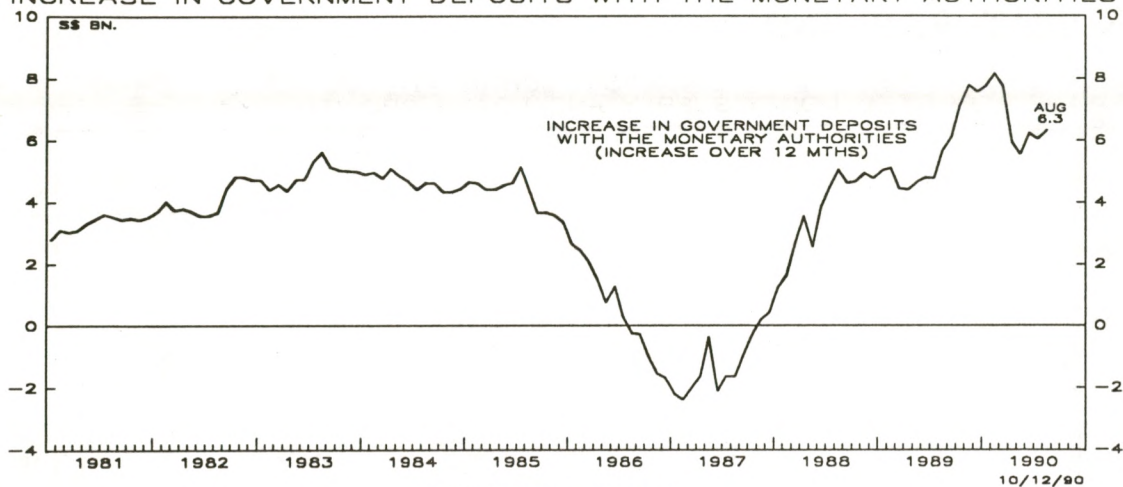
There are, however, some additional indicators for the Singaporean economy which gauge the overall liquidity available to the banking system. These indicators include government deposits with the Monetary Authority of Singapore (MAS) and the foreign exchange reserves accumulated by the authorities.

Chart 2 shows that since March 1990 the accumulation of government deposits with the MAS has been declining. As deposits with the MAS also form part of the reserve assets of banks, the fact that the government is now accumulating these deposits at a slower pace indicates an overall easing of liquidity in the financial system.

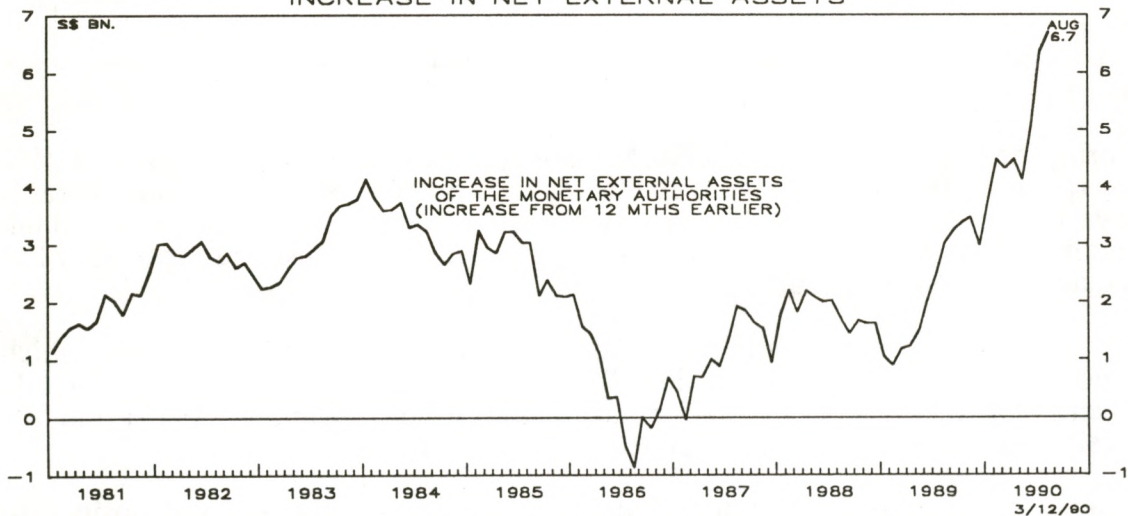
Chart 3 also indicates a rising trend throughout 1990 in the net amount of foreign exchange assets held by the authorities. The counterpart of that increase would be a rise in the amount of Singaporean dollars sold by the authorities in exchange for these foreign currency denominated assets.

Chart 4 brings together the net effect of the developments shown in Charts 2 and 3 by subtracting the accumulation of deposits with MAS by the government from its net accumulation of foreign assets. The overall effect of the both the external and domestic developments is a net injection of liquidity in the system. This, however, need not translate directly to additional bank lending, and therefore growth in money stock, as long as borrowers are discouraged by higher interest rates and declining economic activity, such as falling export growth. The basis for a future credit expansion is, however, building up.

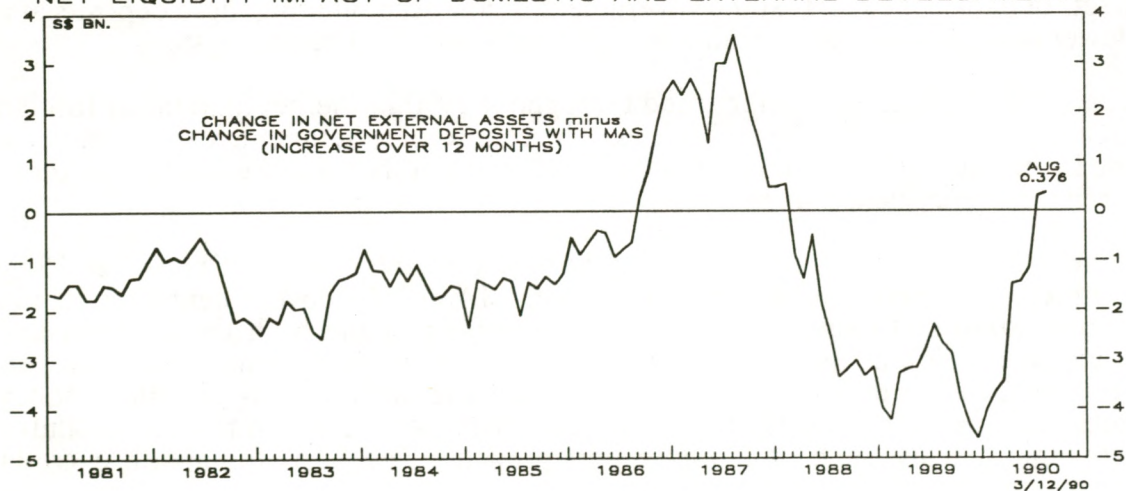
SINGAPORE: CHART 2
INCREASE IN GOVERNMENT DEPOSITS WITH THE MONETARY AUTHORITIES



SINGAPORE: CHART 3
INCREASE IN NET EXTERNAL ASSETS

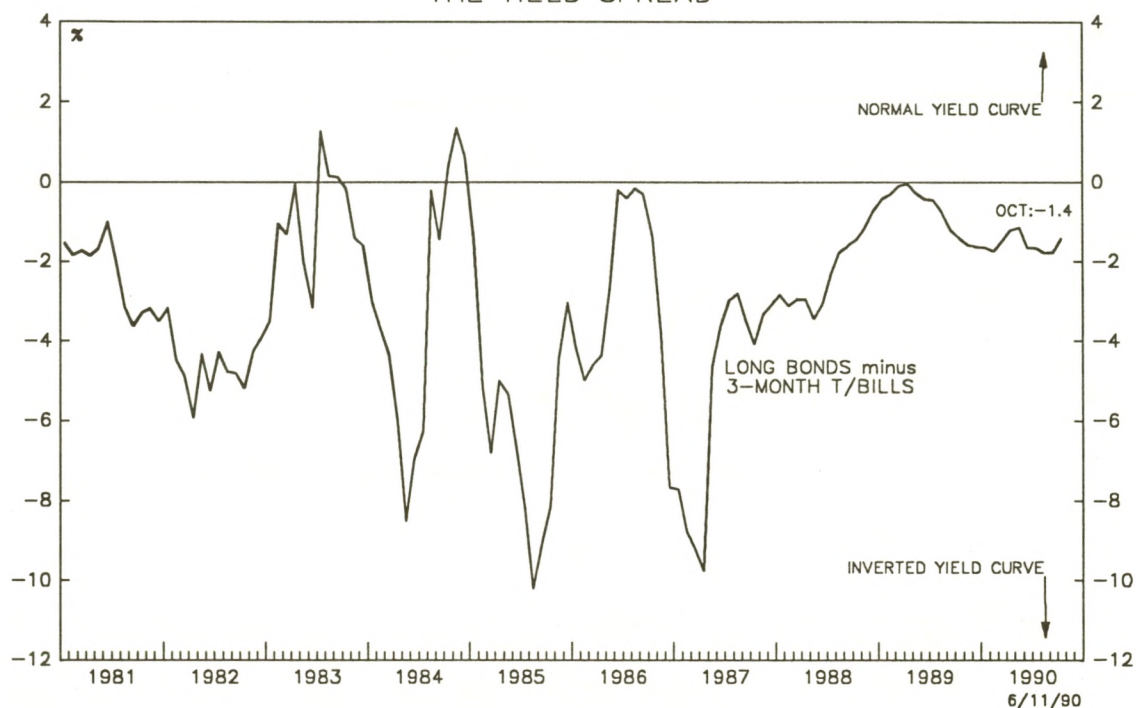


SINGAPORE: CHART 4
NET LIQUIDITY IMPACT OF DOMESTIC AND EXTERNAL DEVELOPMENTS



NEW ZEALAND: NEW GOVERNMENT, SAME POLICIES

NEW ZEALAND: CHART 1
THE YIELD SPREAD

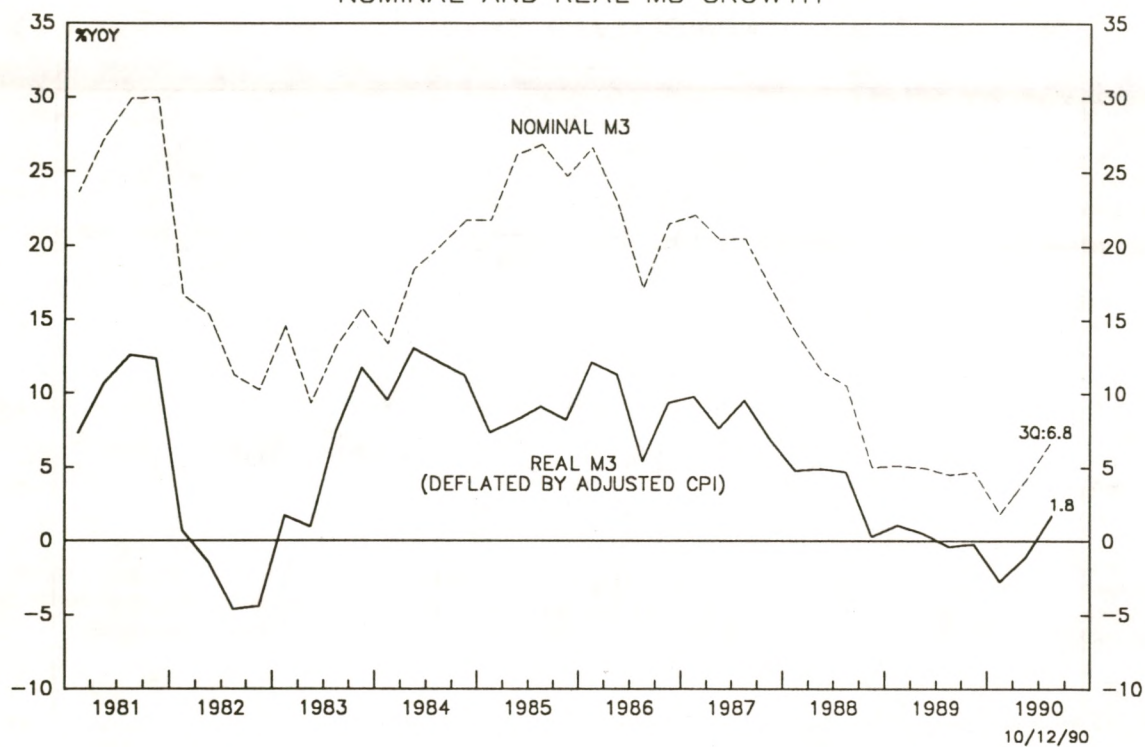


On October 27th 1990 the National Party won the largest election victory in the country's history, ousting the ruling Labour Party. At first sight this appears to be an overwhelming rejection of the reforms of "Rogernomics", yet the new government has stated clearly its intention to continue with almost identical policies.

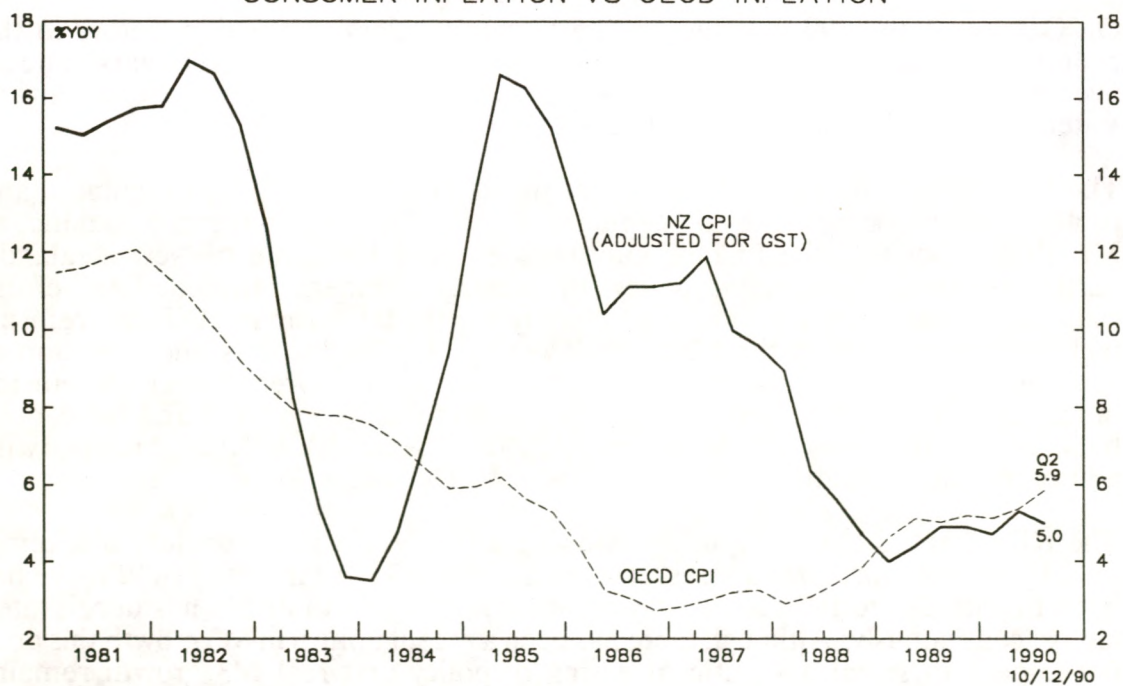
The Labour government that took office in 1984 inherited the most regulated and protectionist economy in the non-communist world. However, under the guidance of Mr. Roger Douglas, the finance minister who gave his name to New Zealand's particular creed of economic policy, the new government proceeded to reform radically almost every aspect of the economy bar the labour market. These reforms included the floating of the NZ\$, the lowering of trade barriers, the abolition of subsidies, privatisation of state-owned industries and a comprehensive restructuring of the tax system. In addition, the banking system was deregulated and the central bank, the Reserve Bank of New Zealand (RBNZ) was granted full independence with a brief to reduce inflation to a target of 0-2% by December 1992.

The RBNZ set about this task by following a policy of strict monetary discipline, initially raising short term interest rates to almost 30%. An inverted yield curve has been maintained to the present day and the rate of growth of M3 has decelerated almost continuously. Although there has been a recent upturn in M3 growth this does not appear to signal a significant easing of policy and real M3 growth remains negligible.

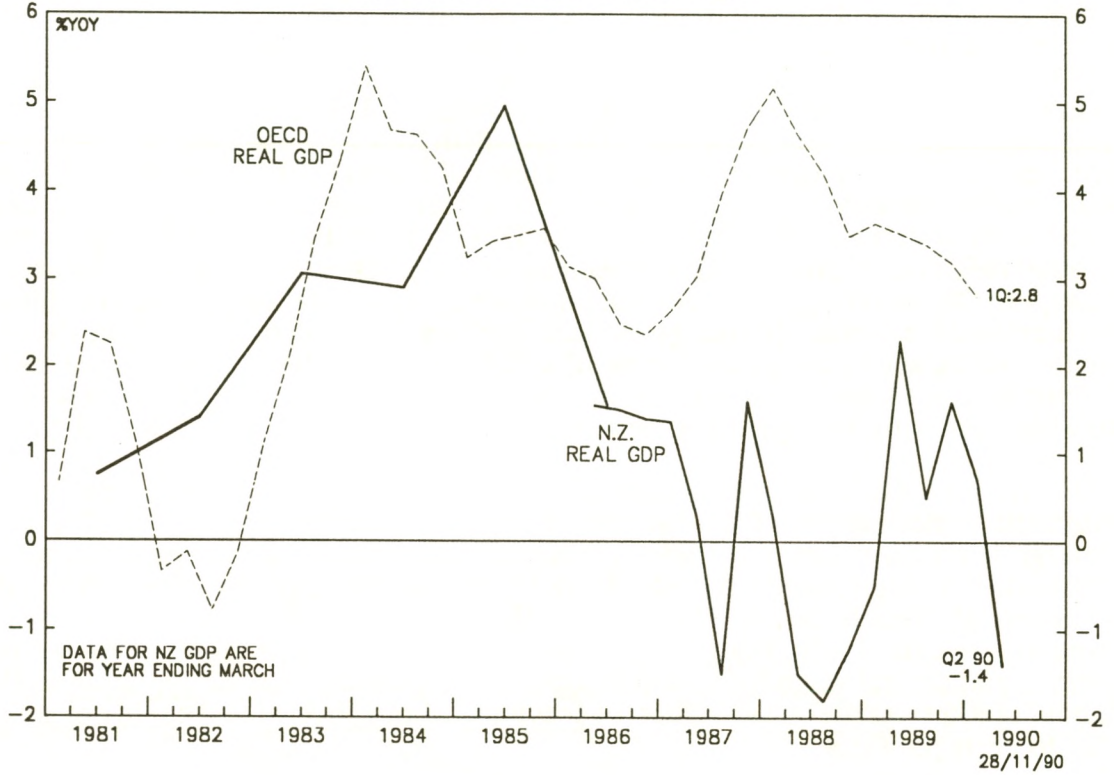
NEW ZEALAND: CHART 2
NOMINAL AND REAL M3 GROWTH



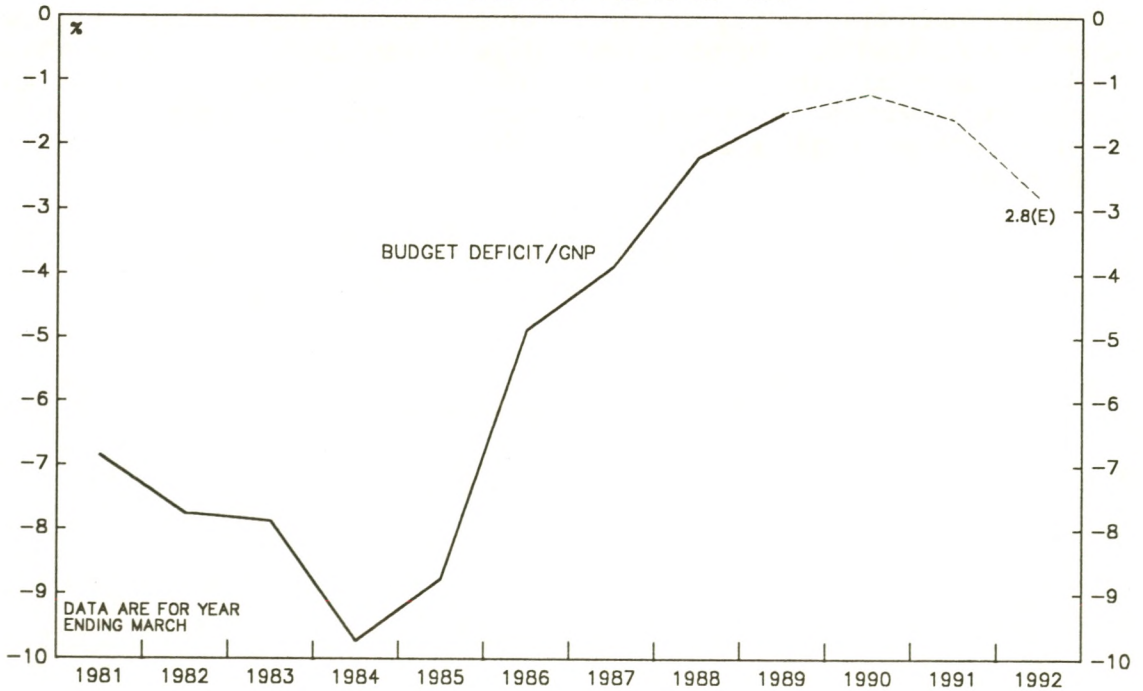
NEW ZEALAND: CHART 3
CONSUMER INFLATION VS OECD INFLATION



NEW ZEALAND: CHART 4
REAL GDP AND OECD GDP



NEW ZEALAND: CHART 5
BUDGET DEFICIT AS % OF GNP



The result of this monetary squeeze has been a fall in the rate of inflation from well in excess of the OECD average to slightly below. Leaving aside the effects of the oil price hike, the trend in inflation should continue to be downwards, especially as the incoming administration intends to maintain the 0-2% target, albeit by the later date of December 1993. However, the cost to the economy has been high and the country is in recession with real GDP at similar levels to 1985. This is in contrast to the early 1980s when the average rate of real GDP growth in New Zealand exceeded that of its competitors. Unemployment is at a record level of almost 8% of the workforce, retail sales continue to be very sluggish and there have been a large number of bankruptcies, notably the collapse of the investment bank DFC in 1989. In addition, foreign debt is around 70% of GDP, the RBNZ has been intervening in the domestic money markets to support the currency, and government expenditures remain excessive preventing further improvements in the budget deficit. The July 1990 budget reversed the decline of the public sector as a percentage of GNP which had been falling since 1974. Excluding asset sales which resulted in an overall surplus, the budget deficit was set to widen over this fiscal year and next in response to increased public spending.

Although New Zealand requires an improvement in the world economy, especially in Australia -- destination of almost half of manufactured exports -- to enable it to emerge from recession, the stance of the new government gives rise to cautious optimism. A tough finance minister Ruth Richardson has been installed along with ministers at Health, Social Welfare and Housing who have promised significant expenditure cuts. Furthermore, legislation is to be announced before the end of the year to end central wage fixing and compulsory unionism. The deregulation of the labour market was the one area that the previous Labour government could not tackle due to party politics.

The transition of the New Zealand economy away from regulation and protectionism has been at the cost of five years of stagnation. This is due to the time lags and difficulties inherent in shifting from non-profitable sectors and industries, to those where New Zealand has a competitive advantage. Nevertheless, reform of the labour market, a reduction in the government sector and continued monetary rectitude are a recipe for a successful economy post recession. The problem remains of how and when this recession can be ended and the further damage that will be inflicted by its prolongation.

